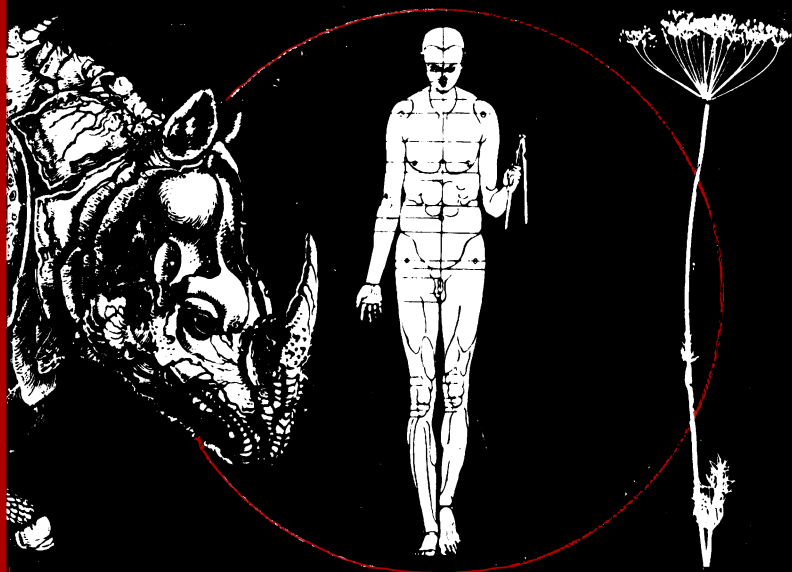


Leo Gumilëv



Ethnogenesis and the Biosphere

PROGRESS PUBLISHERS



Leo Gumilev, son of the poets Nicholas Gumilev and Anna Akhmatova, inherited not only unusual talent from his parents, but also the vicissitudes of their difficult lives. But, however dramatic the circumstances of his life, Leo Gumilev continued to work, with the dedication of a man devoted to science, on a theme that already interested him as a youth, viz., the relations and interactions of various cultures, civilizations, and peoples (ethnoi).

The Khamar-Daban taiga and the expanses of Lake Baikal, the gorge of the Vakhsh River in Tajakistan and Tajik villages, the Taimyr tundra, and the Palaeolithic caves of the Crimea – all locales of his expeditions – yielded the material that underlies the theory of ethnogenesis that he is considered the father of.

PROGRESS PUBLISHERS



Leo Gumilëv

**Ethnogenesis
and
the Biosphere**



**PROGRESS PUBLISHERS
MOSCOW**

Translated from the Russian
Designed by *Vadim Novikov*

Лев Гумилев

ЭТНОГЕНЕЗ И БИОСФЕРА ЗЕМЛИ

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INTRODUCTION

in which the need for ethnology is substantiated and the author sets out his views on ethnogenesis, without his line of reasoning, to which the rest of the treatise will be devoted, and in which the author will lead the reader through a labyrinth of contradictions

The Grounds for Scientific Quest

Time and history. History is the study of processes taking place in time, but what that time is nobody knows. There is nothing surprising in that. Fish probably do not know what water is, because they have nothing to compare it with. And if they chance to be in air they do not have enough time to compare it with water.

V.I. Vernadsky defined death as the separation of space and time,¹ because inert matter, in his opinion, was timeless. He was seemingly right, but historians are concerned only with the processes of dying in which the now becomes the past. But is the past real? There is not unanimity of opinion on that among modern scholars.

There is a very common view that there is no past. Giovanni Gentile wrote:

In times past men were born and thought and laboured ... but all these are long since dead like the flowers on whose scent and beauty in their lives they feasted, or like the leaves which they saw growing green in spring or sere and fallen in the autumn. Their memory lives; but a world remembered, like the world of dreams, is nothing; and remembering no better than to dream.²

The historian, in short, knows well enough that the life and meaning of past facts is not to be discovered in characters or inscriptions, or in any actual relics of the past; their source is in his own personality.³

One cannot agree with that, but let us wait to dispute it, since others, too, have written on this theme. Dilthey and Gardiner were even more categorical. They, in fact, denied history, affirming that its conclusions were unreliable since historians were inevitably subjective, and therefore could not be dispassionate. 'The *primaeval* cell of the historical world is the happening in which the subject

finds himself in an active relation of life with his surroundings.⁴ Gardiner has said:

There are no absolute Real Causes waiting to be discovered by historians with sufficiently powerful magnifying-glasses. What do exist are historians writing upon different levels and at different distances, historians writing with different aims and different interests, historians writing in different contexts and from different points of view.⁵

Modern historians, it would seem, have provided these thinkers with the material for such pessimistic conclusions, the same historians aptly described by Anatole France:

Do we write history? Do you imagine that we attempt to extract the least parcel of life or truth from a text or a document? We publish texts purely and simply. We keep to their exact letter... Ideas are crotchets.⁶

I do not wish to defend that position but surely the dispute is in fact about it. So let us introduce the needed clarity.

The dispute, if one began it, would be based on a philological misunderstanding. A whole series of tasks, quite different from one another though interconnected, are called history now. (1) The publication and translation of ancient sources is a necessary task, but only yields raw material. (2) Historical criticism, sifting out the deliberate and sometimes unconscious lies of authors of antiquity, is the production of semi-finished goods. (3) Comparison of the material won about what was previously accumulated is already the product, but not yet a consumable one. Then there is (4) the interpretation of facts on the plane of the problem posed and (5) the posing of new problems arising at the juncture of sciences. The philosophers mentioned above, and many like them, were sorry essentially about the fact that they could not use the obtained raw material without further processing, which is actually impossible, but there is no other way and will not be. The philosophers are right about something else—not everyone can find this road.

The simplest generalizations, it seems, call for such mental élan and heat of emotions that thought melts and takes on a new form, astonishing the candid reader at first but then convincing him. The point is not what course of thought or choice of arguments a thesis is proved by; that is a craft, which it is necessary to know, of course, but is not enough to know. The point is *why* a new thesis is sometimes discovered and demonstrated. That is a mystery of the psychology of creation that the Greeks ascribed to the muse of history

Clio, who reminded us that the scepticism of the philosophers was unjustified and that the past was not personal experience and not a dream. Because the present is only a moment, instantaneously becoming the past. There is no future, because no acts that determine consequences of some sort are completed, and it is not known whether they will be in the future. The future can only be gauged statistically, with a tolerance that deprives the calculation of practical value. But the past exists; and everything that exists is past, since anything completed then and there becomes the past. That is why history studies the only reality, which exists outside us and in spite of us.

Talk about the unreliability of subjective perception is idle chatter. Reliability is always necessary within definite limits, beyond which it becomes meaningless. It is impossible and unnecessary to calculate the distance from Moscow to Leningrad to an accuracy of a millimetre. It is the same in history, but it has its own specifics of the posing of the problem.

It is reasonable to study processes (social, ethnic, and cultural) rather than nuances of the sensations of historical personages. The degree of accuracy in collecting primary information is small, but when long-lasting processes are traced chance errors cancel one another out, so that we can get a description meeting the needs of our practical task, viz. to understand an epoch. And the wider the coverage the greater the accuracy.

With that posing of the matter there is no sense in increasing the number of petty details above the necessary, because they create cybernetic 'noise'. And the principle of the selection of facts is prompted by the task posed.

Since I start from the point that an ethnos is a natural phenomenon in its forming, the basis for studying it can only be the philosophy of science, i.e. dialectical materialism. Historical materialism sets itself the goal of disclosing the laws of social development, i.e. relates (as Marx put it) to the history of people and not to the history of nature which lies in men's bodies. And although both these 'histories' are closely interwoven and interconnected, scientific analysis calls for refining the angle of vision, i.e. the aspect. The historical material we draw on is our information archive and no more. It is necessary and sufficient for the purposes of analyzing it. Marx expressed himself clearly about this:

History itself is a *real* part of *natural history* and of nature's becoming man. Natural science will in time subsume the science of man just as the science of man will subsume natural science: there will be *one* science.

We are now on the threshold of the creation of this science.

When it becomes a matter of synthesis, the approach to a problem is correspondingly altered. But, of course, analysis precedes synthesis, and there is no need to jump the gun. Let us say simply that the elements of a scientific materialist science will remain inseparable in it. Having agreed on the meaning of the terms and character of the method, let us pass to the posing of the problem.

In declaring that an ethnos is a biophysical phenomenon, that drive is an effect of the energy of the animate matter of the biosphere, and that consciousness, and equally the history of culture linked with the biosphere, play the role of rudder and not of the motor, we have not resolved the problem posed but have only noted the means of tackling it. But let's not rush things; let us see whether there is an analogous posing of the problem in contemporary science. There is! Karl Jaspers proposed his own solution.⁸ Let us familiarize ourselves with it.

A philosophical-historical conception has prevailed in Western Europe (and only there) since the fifth century A.D., i.e. from Augustine to Hegel, that regarded the historical process as a single line with a beginning and an end, i.e. with completion of its sense. A religious comprehension of history as a striving for the Absolute arose initially from this conception, and then an atheistic 'religion of progress'. Jaspers' views are the latest version of this theory.

Jaspers singled out from history an 'axial time' when, between 800 and 200 B.C., spiritual movements arose parallelly in China, India, Persia, Palestine, and Hellas that shaped the type of man that allegedly has existed to the present time. In China these were Confucius and Lao-tzu, in India the Upanishads and Buddhism, in Iran Zarathustra, in Palestine the prophets, in Hellas Homer and the great philosophers. All the world religions and philosophical systems arose from them, and other peoples, like the 'pre-axials', are unhistorical and can only become enlightened from the 'axial' peoples and their successors, because there was an 'awakening of the spirit' and 'ultimate questions of being' were posed in the 'axial time', questions of death, finitude, tragic guilt, and the meaning of human existence. The 'axial time' was, as it were, the root of all subsequent history.

Jaspers did not explain how the parallelism he noted arose in the development of cultures independent of each other, and from what. Neither the invasion of China, India, and Europe by nomad Arians, nor the social conditions in those countries, can provide a

satisfactory answer. The genesis of the phenomenon remains an open question, but it is an undoubted fact that a 'philosophy of faith' arose at that time, and in those regions, which provides a real link, to Jaspers' mind, between nations and cultures.

I shall stop here, because the philosophical part of the doctrine of existentialism, discussion of the present and future, and attempts to explain the sense of history, can only be interesting when the structure's foundation is quite firm. And that seems even to be doubtful.

First of all, this 'axis' is very broad. Six hundred years is a period into which much could be squeezed; in addition, it is clear by comparison that immense changes took place during that time, with different results for different countries. China, for example, was united by the Han dynasty, and Hellas and Persia were conquered by 'unhistorical' barbarians – Macedonians and Parthians. Something is not right.

Let us read further attentively. Jaspers compared how the period of progressive development was completed: in China the Ch'ing Empire (221-202 B.C.), the Maurya Kingdom in India, the Roman Empire, and the Hellenistic states. But in the third century B.C. the kingdoms of the Diadochi in Egypt, Syria, Macedonia, and Bactria were by no means powerful, while Rome was exhausted by the Second Punic War. The Maurya Kingdom in India broke up after the death of Asoka in 226 B.C. Was it because there was disintegration in the West but integration in China? If we compare China with the age of Augustus the chronological assumption is as much as 300 years. Isn't that a lot?

The idea of an 'axial time' as a source of spiritual life is refuted by the history of ancient America; the Mayas, Toltecs, and the fore-runners of the Incas in the Andes (the Tiahuanaco culture) were not, after all, inferior to the ancient Chinese, Indians, Persians, Hebrews, and Greeks. And it is quite untrue that China withstood the onslaught of the Mongol nomads, rather the contrary.

One can also find more grounds for doubt, but that is not the point. Jaspers' conception is the most substantiated attempt to understand history as a boon bestowed on primitive savages by these five peoples that made the 'breakthrough' or 'leap', and were born anew as it were. This is an arrangement of the views not only of St. Augustine, the source of all the heresies of the Middle Ages, but even of the old Judaic thinkers who created their doctrine of being the God-chosen people. With a theory of ethnogenesis as a process occurring everywhere, it is impossible to agree with Jaspers. But disagreement is not enough. Let us try and get evidence from the

contrary, but not from an academic survey of the trifles it is easy to drown any dispute in, but by a graphic survey of historical reality in the millennium since the 'axial time'.

To begin with, let me note that there actually was the parallelism of the development of the several cultures of antiquity noted by Jaspers, but it was not the sole parallel, and not so fruitful one for singling out the Chinese, Hindus, Iranians, Hebrews, and Greeks in a special category of people; and it faded like other drive explosions of ethnogenesis. That is my counter-thesis. Now let me proceed to check it.

The view from up above. Feelings for other ages swirl in the breast of the historian, but when they surface they are converted into thoughts that hover like ghosts, pale and weightless, incapable of penetrating the consciousness of the reader—the unknown friend for whom they are born.

How is one to give them the primary force of the passion that once generated them? Let me try an old dodge—an image—and may the reader forgive me for beginning a scientific treatise with a lyrical digression.

Imagine that a space vehicle has come close to Earth carrying supermodern observational instruments that record the details of a strip of the Old World of the surface between 30° and 50° north latitude. America, let us assume, lies in unilluminated part of the planet at the time of approach. The observations are fed into the spacecraft's computer, which rejects data not of interest to the spacemen, leaving only what is connected with human culture. Natural conditions will be taken into consideration only when it becomes clear during the work that they are needed in order to understand the genesis of culture.

The first thing the newcomer will see will be the geographical areas of different independent cultures connected with the peculiarities of relief and climate of the regions of the Eurasia and of those of North Africa contiguous to it. The cultural types themselves will be blurred, as for the earthly historian who is concerned with early antiquity. Before the spaceman there will then be outlined the contours of Egypt and Babylon of the second millennium B.C., but not yet of China and India. In the first millennium B.C. he will see, in addition to those countries, Hellas and Rome, but the main, central part of the continent will open up to his instruments only from the beginning of our era. He will then be able to begin a global analysis of his historical observations.

Try and imagine yourself in the place of this newcomer from outer space, on the assumption that he is anthropomorphous and thinks in the categories of earthly logic.

The stream of light coming to meet him from Earth will bear with it quick panoramas with intervals (breaks) for the time when the territory interesting him is on the other side of the planet rotating on its axis.

Assume that historical panoramas are fixed every 300 years for, say (arbitrarily), the second, fifth, eighth, and twelfth centuries A.D. The sum total of the knowledge so obtained will correspond approximately to the level of knowledge of an educated person but not of a professional, i.e. of the dilettante (who loves, as we know, to pass judgment on the history of mankind, suggesting without grounds of any kind that it is much easier to do that than to interpret problems of organic chemistry).

But we must not judge by preconceived opinions of any kind. Dilettantism can also be useful, or rather fruitful. So let us go the whole hog with the hypothetical astronauts and at the same time check the expediency of the following method, i.e. let us compare logically impeccable conclusions drawn from instantaneous observations (from the standpoint of the scale of history) with what in fact happened in the 300-year interval.

First observation. Second century A.D. Following the Sun. A dim meandering strip on a yellow loess plain, and broad blue ribbons on a green cover of jungles—these are the Huangho and Yangtse rivers and between them the great China of the late Han dynasty. The fields are tilled, the peasants are harvesting millet in the north and rice in the south. Silk garments of various colours and fanciful patterns are being made in workshops. Clay huts surround the luxurious palaces of grandees, built of wood and bamboo, and buried in green gardens with light arbours and pavilions.

In the imperial palace plump eunuch officials keep business accounts on a precious material—paper, and military commanders come to them with bows and gifts, begging to be given profitable appointments. The eunuchs take bribes, knowing quite well how short the giver's career will be. Here a former lucky one is being led to execution for having robbed the inhabitants of the province he governed, getting money for the patrons. No one intercedes for the person being executed because grim soldiers armed with halberds and arbalests—Tanguts or Hunni from the borderlands—are lined up on both sides of the executioner's block. On the contrary, there is merriment that there is one oppressor less. The robbed Chinese

rejoice, not suspecting that the emperor's current favourite will ask him to appoint her brother to a profitable place, and that he will begin new extortions.

Only among the Confucian scholars can one note the distress on the faces, because they foresee the future calamities arising as a rule with the universal venality and decline of education, and also, perhaps, among the Taoists whose teaching is banned on pain of death. But the Taoists are bold people; in the mountain villages they not only forecast the weather, and treat the sick, but also whisper the peasant youths that the 'Blue heaven of violence' will be succeeded by the 'Yellow heaven of justice'. The authorities, however, pay no attention to such trifles.

The spacecraft's computer processes these data and proposes a forecast: the economic system is firm, there are no dangerous neighbours, the export of silk, unprofitable for China, may be stopped, since the gold obtained for it flows into the hands of favourites who, foreseeing disgrace, hide it in the ground so as to provide for their children. And the astronauts draw the logical conclusion that before them is a stable society with a rich, developing culture, that the boundaries of the Han Empire will be extended to the north and west so as to enlighten the savage Hunni and Tibetans by an advanced civilization, and that the drawbacks of the bureaucratic system will be eliminated by the spread of education, because that is profitable for the state and consequently should lead to universal good.

I shall not blame the astronauts for ignorance of the dialectic of ethnic history. Let me say, only, that within 50 years the population of China will decline from 56 million to 7 500 000, that all the possessions 'beyond the Wall' will be lost, and people will forget to think about culture.

The lens is shifted to the west. The broad dry steppe from the Orhon to the Volga is bloodstained. Hook-nosed, bearded Hunni are quitting their native land on the banks of the Selenga and Onon and fleeing, pursued by stocky, broadfaced Hsien Pei, because 'their horses are faster and their weapons sharper than those of the Hunni'.⁹ Only small bands of fugitives remained of the powerful Hunni state. Some found refuge behind the Great Wall of China, others in the mountain defiles of the Tarbagatai Mountains, and others on the banks of the Yaik (now the Ural) and Volga—the Hsien Pei pursuers did not go so far.¹⁰

But things were not easy for the victors either. The conquered pastures became deserts under their very eyes. The Bet-pak-dala (Hungry Steppe) was growing, the Gobi was spreading south and

north, wells and springs sank deep into the ground, rivers became shallow, Lake Balkhash was drying up, and reeds began to grow in the shallows of the Sea of Aral turning it into the 'Oxus marsh'. It was only possible to live on the Great Steppe in the foothills of glacier-crowned mountain ranges from which little streams of fresh water flowed even in summer. The outlook there was very gloomy. The bearers of the old nomad culture, the Hunni, split up and dispersed. The eastern groups became vassals of the Chinese, the western, having lost many of their wives and most of their children during the retreat of 158-160 A.D., began to steal women from the Alans and Ugrians. The Ryn Sands (between the Ural and the Lower Volga) settled by the Hunni fed them so meagerly that they could be expected either to die out completely or to assimilate with the aborigines (Ugrians, Alans, and the Chionites).

The Hsien Pei confederacy disintegrated, lasting only half-a-century. The tribes making it up separated and became mutual enemies. All the visually gathered facts forced a logical conclusion—the ancient Central Asian culture had collapsed and there were no grounds for supposing it could revive.

But the opinion about the West European culture of that time would have been diametrically opposite. The flourishing steppes around the Black Sea were populated in the second century A.D. by two peoples (ethnoi)—the Alans on the Kuban and the Don, and the Goths on the Dnieper.

Great deep rivers ruled out even the thought of a possible drought. The Alans' economy was already a settled one—tillage was combined in it with transhumance herding. The grain surplus went to the eastern part of the Roman Empire, which paid for the cereals with the products of handicrafts and objets d'art. The Alans already knew the potter's wheel. Their heavy armour was made in the best workshops of Asia Minor and Hellas. Their armoured cavalry anticipated the future European knight's armament. All that hinted that a cloudless future lay before the Alans.

And the Goths, who had migrated from Southern Scandinavia to the estuary of the Vistula in 155 A.D., continued a victorious march to the lower reaches of the Dnieper, and from there threw themselves as far as the Aegean Sea where Corinth and Athens, Byzantium and Miletus and famous Ephesus became their victims. The Goths were the best warriors and most capable pupils of the philosophers and heretics of the Near East, whose culture they imbibed as a sponge soaks up water. The Goths subdued or drove away all the ancient tribes of Eastern Europe, with the exception of the Rossomoni with whom they were forced to reckon.

It was obvious for an observer that the Gothic ethnos and its culture were on the rise.

By comparison with the Goths and Alans the forefathers of the Slavonic tribes of the Middle Danube seemed an insignificant sprinkling. Although the dispassionate computer of the hypothetical spacecraft would have noted their existence, the interpreter would justly have paid no attention to them.

On the southern borderlands of the Caspian Sea, from the Oxus (Amu Darya) to the Tigris, lay the Parthian Kingdom. For five centuries (from 250 B.C.) it divided the Oecumene into East and West, lying in the very middle.

The Parthians were the most advanced people of Eurasia. They created feudal institutions before all other peoples. At the head of their state stood four ruling clans: the Pahlavis, who represented the ruling dynasty, the Surenas, the Karenas, and the Mihranis, who would succeed the royal family if it died out. Below them in the hierarchy there were consecutively seven noble clans, 240 noble families, and a host of dihaans, who were similar to the Polish petty *schlachta* or Spanish *hidalgos*—poor knights. Lower down still were enserfed peasants, urban craftsmen, and the slaves captured in the endless wars on Parthia's eastern and western frontiers.

The Parthian nobility patronized the culture, or rather the cultures, formed in these lands. The Parthians themselves came from the slopes of the Kopet Dag as warriors who drove the Macedonian conquerors out of the holy land of Iran. But the natives of that country, the Persians, considered the Parthians foreign Turanian conquerors also. Feeling themselves isolated, the Parthians thirstily drank in the philosophy of Hellenism, the teaching of the Indian Buddhist monks, and the preaching of the first apostles of Christianity but, equally with these strange ideologies, esteemed the Indian cult of holy fire and the Bactrian teaching of Zarathustra about the eternal struggle of Good and Evil—of Ormuzd and Ahri-man. Tolerance was the principle of Parthian culture, and Parthia therefore became an asylum for exiles and outcasts from all the countries around, including Jews, who in that century were the main population of ancient Babylon.

In the second century A.D. Parthia's eastern rival, the Kushan Empire, broke up, while the Roman attack on Mesopotamia and Armenia petered out. The Parthian kings and grandees were not only aesthetes but were also fighters.

The space interpreters, examining the computer's data, undoubtedly would have concluded that the beautifully organized sys-

tem of the Parthian Kingdom, capable of resistance, was a model of the way the progressive part of humanity would develop.

On my assumptions it is not allowed to look into the future, and that is a pity, because in A.D. 224-226 only fragments of its past grandeur remained of Parthia. But the spacecraft's eye-piece has moved on, and is now over Rome.

Unlike Parthian Iran and Sarmatia, the Roman Empire of the second century A.D. would also have presented the space observers an example of completion and perfection that had nowhere to develop, and nothing to develop for.

From the sun-drenched banks of the Euphrates to the Atlantic, and from the parched steppes of the Sahara to the heather hills of Caledonia, the land of the Picts, one law prevailed, one and the same administration functioned, a single bilingual Hellenic-Latin culture flourished, and the overwhelming majority of the population of the polyethnic empire were loyal to the authorities.

Farming, carried on to perfection on tiny plots of land, fed 50 million people. A wall along the Rhine and the Danube, and legions that did not know defeat, guarded the northern frontier, beyond which isolated tribes of Germans lived in the dense forests, and in the steppes between the Danube and the Carpathians the remnant of the Sarmatian ethnos, the Iazyges. Neither of these, nor even more the Celts of Hibernia (Erin), the Moors of the Atlas Mountains, and the Arabs of Transjordan represented the least danger to the regular army. And there where foci of resistance did arise (the Dacians in the thickets of the Carpathian foothills, the Jews in the valley of the Jordan, the bucolic pastoralists of the delta of the Nile, and the Moors of the southern slopes of the Atlas), the enlightened generals Trajan and Hadrian had not left even a trace of these peoples, enabling their successors Antoninus Pius, Marcus Aurelius, and Lucius Verus to occupy themselves with philosophy, both Stoic and Epicurean. Rome, whose population rose to two million, began to be called the Eternal City, since no one could imagine that a stable position that suited everyone could be altered. That would also have been the conclusion of the space observer.

The events taking place around 155 A.D. in a narrow strip of the earth's surface stretching from Scandinavia to Palestine could have interested neither him, nor even a quite earthly outside spectator. For the fact that tribes of Marcomanni and Quadi had broken up on the Roman Empire's fortified line of the Danube and disappeared from the face of the earth was small beer, not worth remembering. The fact that a sect had appeared in Syria and Asia Minor that worshipped the Crucified God was a curiosity for the

commonsense people of the time. For was it so important, they suggested, that there were fools who preferred an otherworldly existence to an easy, gay life. Well, let them get together in the evenings to talk about salvation beyond the grave; let them not visit the theatre and not enjoy the 'dancing wasp' (Roman strip-tease), so long as they observe the laws, pay their taxes, and bow to the statues of the emperors, because the Roman lick-spittles put the authorities on the same level as the divinities of Olympus. And if, for some incomprehensible whim, they refused to bring sacrifices to the statues of the emperors, they should be punished for not honouring the powers that be, as had been done under all the philosophically minded rulers. But for some reason the punishments did not lessen the number of Christians, but had corrupted the heathens from the people, who had become so addicted to denouncing their acquaintances that Trajan had forbidden the magistrates to accept denunciations of Christians, telling them to commit only those for execution who declared themselves to be such. But there were plenty of these also.

But is it worth our while to talk about this theme? For anyone who looks at Earth from outer space socially perspective phenomena are the important ones, and not psychological eccentricities with hysterical syndromes. For only one thing is interesting — how far the forecasts are true.

Second observation. Fifth century A.D. Course—countersunwise. The cosmic strangers tensely await a new seance of observations, without altering the position of their eye-piece. At last! Again the coasts of the Atlantic Ocean and the Mediterranean are outlined but instead of Rome there are ruins, instead of flourishing Gaul and Spain, there is a mosaic of territories ceded to barbarians. Everything is mixed: Burgundians, Visigoths, Franks, Suevi, Alans, Almoricians, and remnants of Gallo-Romans around Lutetia (Paris). Vandals hold the coastal part of the province of Africa, while in the interior savage Moors spread terror. Angles and Saxons have landed in Britannia, deserted by the Roman legions; they conquer this country that called on their aid against the raids of Picts and Scots from highland Caledonia (now Scotland). And all these conquerors were descendants of small, weak tribes from the coasts of the North Sea and Baltic, and natives of the Black Sea steppes driven from there by the onslaught of the Huns.

The Huns were a mixture of Asiatic Hunni and Uralian Ugrians who had not only not perished in the Caspian sand dunes but had extended their power from the Yaik (Ural) to the Rhine. Attila is

leading a numerous horde, augmented by Ostrogoths, Gepidae, Rugi, Heruli, and Slavs, to the walls of Orleans and Aquileia. Rome is paying tribute to the Hun king.

What became of all the marvellous culture, engineering, art, and philosophy? The old gods had been declared demons in all the cities of the Empire not yet sacked by the Germans. But these cities were not defended by the descendants of Italian legionaries, while these same Germans only did so for pay.

It has to be admitted that the prediction was mistaken.

The forecast about the Eastern Empire proved to have as little truth. The very dreamers who had offered themselves up for execution during the period of universal well-being had won out there. Now, in the fifth century A.D., their descendants are telling the secular power, whose representatives are only parishioners and not servants of the Church, what to do. But among the servants of the Church there is not even a ghost of the friendly spirit that united the Christians of the second century. People were divided by hostility, old as the human race, but now dressed in the garb of confessional disputes. The Donatists, who rejected contact of the Church and State, were strong in North Africa. Arians spread their doctrine among the German tribes. Nestorians had found support in Syria and Mesopotamia, and Monophysites in Egypt and Armenia; only Greece, Asia Minor, and Italy remained Orthodox. In these currents of theological thought, it should be noted, there was concealed a kernel of future ethnoi, but from outer space these fine nuances are indistinguishable by the most sensitive instruments. From high up it seems that, since people were killing each other in the name of slogans, the slogans should be cleared away and all would live in peace. But since interference in history is ruled out, a new forecast can be made—the degenerating antique culture must give way to as yet unspoiled barbarians: Goths, Vandals, Burgundians, and of course the Huns, who knew how to unite and draw all their neighbours after them. So it could, and even should, have been thought in 452 A.D., but in 453 the Hun federation broke up, and in 469 the remnants of the Huns, broken by the Byzantines, fled into nowhere and disappeared from the pages of history.

In Iran the Parthian aristocracy has been succeeded by the Persian monarchy, an alliance of throne and altar, i.e. of the Zoroastrian clergy and the dihaans or village lords. The aristocracy was unbroken but became an opposition to the shah's centralized authority, or rather to the bureaucracy of the shah's divan (or chancellery). The money to maintain the luxurious court and to pay the dabiri (officials) did not come from taxes on the poor peasants,

hardly able to keep alive, but from imposts and duties on the transit silk trade between China and Europe.

The system of state and society had become rigid, excluding any progress. But it seemed as unbreakable as a rock, because all its elements were so complicated that any reorganization would prove fatal. Once a year, it was said, the Persian shah gave a feast for all the estates of Iran and pronounced a traditional speech at it: 'You are the happiest people in the world. The grandees of course live worse than me, but better than the dihaans, and they better than the urban craftsmen, but these live better than the peasants who live better than the slaves; but the slaves live better than the criminals in prison who are better off than those condemned to death, and those who are hanged are better off than those who are impaled.' After the speech he drank a cup of wine and withdrew, while the lucky Persians feasted and dispersed. If that is not true, it is cunningly invented.

But if one adds to the description of the social system that the Persians successfully defended their frontiers in the fifth century against the Greeks in the west and the Hephthalite highlanders of Hindu-Kush in the east, broke the steppe tribes of the Chionites and Kidarites, subdued the Georgians and held the Armenians in subjection, then another forecast should be made, that the Persian kingdom would be much more stable than rebellious Byzantium, and the cult of fire, which had endured for and was hallowed by centuries, would probably outlive the dismembered Christian Church. Well then, let us draw a conclusion for the next seance of observations, i.e. three hundred years later.

One surprise follows another. The steppes withering in the second century have again grown green. The space observer could not know that the Atlantic depressions and Pacific monsoons that bring moisture to Eurasia were shifting their path a thousand kilometres to the south. In the fifth century A.D. they were again passing over the steppe zone and watering the Mongolian and Jungarian steppes.

Nomads of the Tölös tribes, one of which, the Uighurs, made itself famous in the history of Asia, crossed the shrinking Gobi Desert from the south. Failures, criminals, deserters, and suchlike elements fled there, forming the Kushan Horde in the Great Steppe. Following them, from Hansu to the slopes of the Hangai, arrived the band of a Prince of the Ashin dynasty, altogether 500 families, which laid the basis of the Old-Turkic ethnos, saving themselves from the enemy.

On the western edges of the Great Steppe Ugrian tribes (Bulgars) defeated the eastern Huns in 463 A.D. and spread from the Volga to the Lower Danube. And to the north of the Bulgars, from west to east in the wooded steppe belt, spread settlements of Slavs, as far as the right bank of the Dnieper.

Even the outline of the Caspian Sea was different. In the fifth and sixth centuries A.D. its level reached its lowest ever — minus 34 metres (six metres lower than in the twentieth century). The delta of the Volga then stretched almost to the Buzachi Peninsula, and an immense tract of fertile land was not inundated. This country was settled by Khazars, who spread from there to the lower reaches of the Terek.

The world had really been transformed in 300 years, but not quite as the interpreter in the spacecraft had suggested.

But if the astronaut could still recognize the world changed by history and appreciate the magnitude of the mistake of the forecast, he would not have believed his eyes when he saw the valley of the Huangho, where Han China was located. For a period proved to have been omitted in which the Yellow Headdress Uprising rumbled across this unhappy land, destroying the culture, that drove the people to execution. The uprising was suppressed by the regular army and volunteers, who then destroyed each other, freeing space for bands of condottieri who put soldier-emperors on the throne of China, under whom the fratricide and despotism reached its culmination, which provoked an uprising of the Hunni who conquered northern China. The population of China was then divided; the rich fled south, beyond the Yangtse, leaving the poor to the mercy of the conquerors.

The age of the 'five hordes' began (there were actually 27). The Hunni were succeeded by the Hsien Pei Muyongs, and they by the Tanguts, and the Tanguts by Tibetans crushed by the southern Chinese, the latter being driven back by the steppe Hsiung Nu. Finally, the Tabghatchi, who arrived in China from the banks of the Kerulen, were victorious. They defeated all their rivals, but adopted the culture of the local population, the Chinese language, and Buddhism. In the fifth century, an immense chimaera lay in the place of Han China, savage, senseless, and gradually becoming enfeebled.¹¹

But in the south, where the Chinese emigrants mixed with the local tribes, a second chimaera was created — evil, cowardly, and treacherous. Between North and South a stubborn war that no one needed was being waged, the only which the cosmic stranger would have seen (leaving out the origin of the situation in accordance with

the conditions of the exercise), once more convinced of the wrongness of his predictions and the capriciousness of the course of the history of various peoples.

But the interpreter is not lost. He is shrewd. Noticing that Buddhism is successfully spreading throughout China in the fifth century A.D., he ascribes the inertness that the two ethnai of China—both the southerners and the northerners—are sunk in, and that enables savage tyrants and usurpers to push people into senseless bloodshed, to this ‘enervating and mystic doctrine’. And it all looks very connected because the events of three centuries are omitted.

A logical forecast can again be given—the position of the peoples of the Far East is hopeless. The philosophy of ‘inactivity’ and ‘contemplation’ will not give them a chance to overcome the crisis; stagnation and decline lie ahead of China, which will be obvious during the next seance in the eighth century.

And it is not worth getting discouraged because the first forecasts did not turn out. The astronaut lacked experience then, which was why some details remained unallowed for. That made for error, but it will not happen again.

Third observation. The eighth century. Following the Sun. A new disillusionment with the method employed! In China, united and powerful, rules Hsüan Tsung, an emperor of the Tang dynasty that had subdued Middle Asia (658 A.D.), North Korea (668 A.D.), Central Asia (745 A.D.), and the Pamirs (747 A.D.). Within the country there was plenty; the price of rice had never been so low in all the history of China. The population grew up to 57 million. Education is valued highly. State examinations had been introduced for grades of rank, and all officials read (or knew how to read) Confucius and Lao-tzu. Ch’ang-an, the capital of the empire, was a city of a million population where schools, a theatre, and a conservatory for singers and dancers functioned. The best poets of China Li Po and Tu Fu read verses to the court aesthetes; those not interested in verses listened to debates between Confucian scholars and Buddhist monks who had visited India and Khotan, while others wrote the history of the past Sui dynasty (A.D. 581-619).

So, instead of stagnation and decay, an unprecedented flowering and a prospect of spread of the power of an enlightened, humane monarchy throughout Asia.

All the astronauts of our spacecraft draw such a conclusion. But if they had kept China in the field of their eye-piece for even a year they would have seen how three of the best armies of the Tang Empire were routed: one by Arabs in the valley of the River Talas, a

second in Manchuria by the Khitans, and the third in the jungles of Yunnan by Tibetans and local tribesmen. And in another five years a rebellion by border troops not only destroyed the might of the Tang Empire but also brought calamities to the population of China perhaps comparable only with the terrible epoch of the Three Kingdoms. Once more the wrong moment!

But there is no time to linger in China. It is important to know whether the proud tower of Iran rises high, and whether the golden palace of Byzantium has fallen to pieces? The eye-piece scans the Near East — and Iran is nowhere to be seen!

In place of Iran, the Arab Caliphate with its capital in Damascus stretches from the Pamirs to the Pyrenees. But Constantinople stands as before, and in the Church of St. Sophia mass is sung in honour of Virgin Mary Odigitriya who had granted the Orthodox Christians victory over the fire-worshippers (Persians), the pagans (Bulgars), and the Muslims (the Arabs who had conquered Syria, North Africa, and Transcaucasia).

But three hundred years earlier it was not at all possible to foresee that a handful of nomad pastoralists and camel herders would occupy first place in the world, and that petty traders from tiny towns (Medina and Mecca) would become the vice-regents of former kingdoms. The prediction did not take into account something very important that could not be recorded from up high by the most exact instruments.

It was even more strange that the victorious Arabs were stopped by the small tribe of Khazars living along the lower reaches of the Terek and Volga, in the reeds and riverside thickets of those rivers. Who were these Khazars? What did they derive their strength from? How far would their successes extend? Those are questions the space observer was not in a position to answer, although he had hopes that one of his forecasts would be confirmed; the vital forces of barbarism (and he considered the Khazars savages) should triumph over the gilded rot of civilizations. To test that conclusion he turned his telescope to the west.

Alas! There, where kingdoms of Vandals (in Africa), Visigoths (in Spain), Ostrogoths (in Italy), Franks (along the Lower Rhine), Burgundians (in the valley of the Rhone), and Anglo-Saxons (in Britannia) had been formed in the fifth century, lay ruins. The Vandals and the Ostrogoths were destroyed by the Byzantine Greeks, and the Visigoths by the Arabs. The Franks, having conquered Gaul to the Pyrenees and subdued the Burgundians, had suffered a very violent turmoil. Of what? Of everything! The state, the Merov-

ingian dynasty, morals, customs, the economy, military might, and spiritual culture.

All their neighbours had attacked the descendants of the bold conquerors: the Celts in Brittany, the Basques in Gascony, the Frisians in Lower Country, the Avars in Upper Germany, and the Arabs on the coasts of the Mediterranean. The Franks defended themselves as best they could, sometimes successfully (as in A.D. 732 at Poitiers, when they beat off an Arab sortie that had driven from the Ebro to the Loire), but more often badly. The Angles and Saxons, who had surprised the Celts at first by their cruelty, had gone over to the defensive, so that instead of co-ordinating their forces, they had created seven mutually hostile kingdoms. Ravaged Italy was held by the fierce tribe of Langobards; like the other Germans of the time, they proved quite incapable of establishing order in the conquered lands.

It turned out that barbarism, too, was not salvation from troubles, and that something else was needed to create a culture one could live by. But what that something was is not visible and clear to the astronaut. The interpreter, refusing to make a forecast, therefore asked for the last seance to be held in the first half of the twelfth century after which, if he did not cope with predicting the future, the method of research would have to be changed completely.

Fourth observation. The twelfth century. Course—countersunwise. Western Europe, which had fallen to pieces, is on the upgrade that is called feudalism. Everywhere there are wars, big ones, medium ones, little ones, internal and overseas. The last-named are waged under the grandiloquent title of 'Crusades' to Palestine, where the first colony of Europeans—the Kingdom of Jerusalem—is noticeable even from a cosmic height. A fierce war to wrest the Iberian Peninsula from the Arabs and Berbers shakes Castile, Aragon, Portugal, and Navarra. It is called the reconquest and proceeds with varying success. In the north-east of Europe the Germans begin a drive to the east. They slaughter the Slavs on the banks of the Elbe and the Prussians on the shores of the Baltic. The French Normans have already conquered the English and Sicilian kingdoms and the principedom of Antioch. They were foremost in boldness, organizing ability, and enterprise, yielding the palm in the realms of literature and art to their southern neighbours the Provençals. Toulouse was a worthy rival of Paris and Rome.

Townsmen competed with the feudal lords. Venetian and Genoese galleys ploughed the azure main of the Mediterranean,

bringing the ship-owners overseas luxuries and incomes prodigious for the times. Florentine money-lenders were extending their tentacles to all the capitals of Europe. The Roman clergy and the patriciate were not only demanding from the Pope the right to dictate the mode of life and legal norms to Catholics, but were also appropriating part of the income from church tithes to themselves. Everything was seething and in full swing; everything was being rapidly ruined and renewed, but the now wary cosmic observer declined to predict what would come of it. And that was the best he could do.

But the distance from the object of study provided an opportunity that was lost in close up. This is generalization which is just as real and necessary as detailed elaboration for deepening a narrow theme. Entities became clear for the space traveller that were only comprehensible mentally for earthmen. From high up it is clear that such unlike ethnoi as Spaniards and Swedes, Scots and Neapolitans, English and Czechs, constitute an entity, are aware of it, and even call themselves the 'Christian world', excluding from that definition the Greeks, Bulgarians, Russians, and Irish. Unity of the dogmas of faith does not embarrass them because they invest the title with a quite non-religious sense. They therefore oppose themselves to the eastern pagans, living on the shores of the Baltic, to the schismatics who do not, in principle, acknowledge the supremacy of the Pope (at a time when they themselves do not want to reckon with the Papacy), and to the Muslims.

But the Muslims in turn oppose themselves to all 'non-believers', although they wage the cruellest wars against their own Shi'ites (the Shiah is a party, here a confessional trend with a political colouring). In both cases ethnic fragmentation prevented a decisive victory over opponents, and the astronaut decided not to predict victory for either the disturbed 'Christian world' or the divided 'world of Islam', between which Byzantium was squeezed.

In the thirteenth century Constantinople was the richest city in Europe. Robert de Clari wrote that 'two-thirds of the property of the world was in Constantinople and one third dispersed throughout the world'.¹² And in fact the wonderful structures that skilled craftsmen had embellished with objects of refined luxury; the markets full of the grain from Alania, the furs, caviare, and slaves from Rus, the silks from Baghdad and China, the wines from Greece, the horses from Hungary and Bulgaria; the schools where the poem about the bold Digenes Acritas and the verses of Roman the Sweet Singer were studied together with Homer and Plato, the

radiant temples and powerful walls made the city a special small world, organically blended into the body of the Byzantine Empire.

But all around the capital, on both sides of the Bosphorus, on the sun-drenched hills of Thrace and Bithynia goats grazed, cicadas chirped, and sunburnt peasants pruned grapevines or gathered olives from rented allotments or in the fields of the landowners. And the semi-savage highlanders of Epirus and the Taurus made swords and arrows to repulse enemies — Catholics and Muslims. The luxury of the capital was not for them. Their lot was labour and war.

The capital and the provinces had ceased to think and feel alike, and that means to act in agreement. The educated bureaucrats of the capital had created a civil party in order to curb the provincial landlords, who knew how, and wanted, to defend their homeland.¹³

Unlike the Romano-German 'Christian world', young and on the way up, although very painfully, the Orthodox world of Byzantium was experiencing its golden autumn in the thirteenth century. Much lay behind — the fiery speeches of St. John Chrysostom, the grandiose thoughts of Justinian, the loss of Syria, Egypt, and Italy, the frenzy of the iconoclasts, and the restoration on the ruins of the Eastern Roman Empire of a powerful Greek kingdom that united, under Basil II (976-1025), almost all the Orthodox lands of the Near East. But that prosperity was followed by calamity in 1071 when Asia Minor, overrun by the Seljuk Turks, Southern Italy, conquered by Norman French, Serbia, which had rebelled against the Greeks, and then Bulgaria, where the Bogomils called in Pechenegs to fight the Orthodox in 1086, were lost all at once. Such a combination of calamities could not have been a matter of chance. Something was obviously rotten in the state. But what?

What would the cosmic observer think about that? He might with equal success have predicted the triumph of the brilliant urban civilization and the ruin of the disintegrating Byzantine bureaucracy. But in both cases he would have been wrong.

Hypertrophy of civilization brought Byzantium to the verge of death, while the charm of culture drew to it the hearts of sincere friends and allies who did not spare life for the sake of beautiful ideals.

There were friends in the Abyssinian plateau, and in sun-baked Nubia, and in the green forests of Rus, and in the snowy wastes of Mongolia. The old enmity between Chalcedonites (Orthodox), Nestorians, and Monophysites had lost actuality. The Orthodox world, politically divided, was aware of its cultural wholeness, which would have seemed eternal from cosmic heights.

But where was the Arab Caliphate? It was no more. The sovereign of the Muslims still sat in Baghdad, but there were few who reckoned with him. The emirs of Spain and North Africa had become independent rulers. Central Asia, Iran, and Syria had been conquered by the Seljuk sultans, and in Arabia itself the Karmathians—the Muslims' worst enemies—were playing havoc. Karmathian fortresses rose on the heights of Lebanon. Ismailites, who thought like with them, lay hidden in the towns of Persia and the mountains of the Pamirs, and their co-religionist—the self-styled Fatimid (descendant of the sister of the Prophet Muhammed)—sat on the throne of Egypt.

The political disorganization was no less than in feudal Europe, but on its background there was a flowering of Muslim culture and erudition, because scholars were respected everywhere, and no sultan raised a hand against them. The culture of Islam spread deep into Africa, to the islands of the Malay Archipelago, and up the Volga to Great Bulgar.

Yes, but what became of Khazaria? Why is there no sign of it? Again the fragmentary character of the observations and incompleteness of the analysis deceived. I can now say quite definitely that the method of my astronauts was faulty, although it coincided with the school of aggressive dilettantism very common on Earth. Wherever history is not traced year by year, and wherever the events described are not tied up with one another, even when remote in time and space, a proper conclusion cannot be drawn.

But the method of narrow specialization, in which systems links are also ignored, is also fruitless all the same, in spite of its looking scientific. For wherever there is no global link of cause and effect, any degree of detail is doubtful.

Since my imaginary space travellers are clever beings, they obviously drew a similar conclusion from their observations. They therefore stopped the work of the instruments, having ignored the Far East of the twelfth century, and landed their scholarly confrère on Earth in the lower reaches of the Volga, i.e. in the very centre of the territory being studied. They proposed that he should study the history of the observed period, in order to understand what was what. Otherwise, they threatened him with being converted into a research worker, and they knew quite clearly the difference between being that and being a scholar.

I met this man from another planet on the slope of a big mound, when I was searching there for Khazar burials and fragments of Khazar pottery. It was frightening for me at first because he was ghostly, but then we talked, and he told me many

interesting things about the history of the Khazars and their times. Don't be surprised. Thor Heyerdahl also talked with A'Khu, so there is a precedent. For a long time I was afraid to publish a Russian translation of our talk because there are orientalists in Leningrad who would have demanded a record of the text from me, the author's name, and his signature, and I have none of those.* We communicated by telepathy, his name sounded such that there are no letters to write it down, and I cannot produce proofs, because a flying saucer whirled by in the middle of our conversation, gathered up my interlocutor, and disappeared. So I kept quiet, in order not to be accused of mystification or being a mystic. But orientalists can do that.

Later, however, I plucked up courage. I believe there are indeed people among us who know what a 'literary ploy' is. But orientalists will not read me, because they don't read books, but translate texts. If they do read my book, however, they will all the same pull everything to pieces, as they can't help it. So I made up my mind, having recalled not the other-planetary word, but our own, 'may be', after which I wrote the interpretation of ethnic history presented below, and its possibilities for clarifying the causes of ethnogenesis.

Mankind as the species 'Homo sapiens'. We are accustomed to say 'Man and Earth' or 'Man and Nature', although it is already explained in secondary school that this is elementary, primitive anthropocentrism, inherited from the early Middle Ages. Of course man has created technique, which had not been done either by the dinosaurs of the Mesozoic era or the sabre tigers of the Cainozoic. But, for all the achievements of the twentieth century, each of us has his inner nature which constitutes the content of life, both individual and species. And no one, other things being equal, rejects what instincts tell him. Man has remained within the bounds of the species and within the limits of the biosphere (one of the envelopes of planet Earth). Man combines the laws of life inherent in him with specific phenomena of technique and culture, which, though enriching him, do not deprive him of his involvement in the element that gave birth to him.

As a biological form mankind is the sole species with a vast number of variations which have spread over the whole surface of the globe in the post-glacial period. The density of the species' distribution varies but, with the exception of the polar ice-caps, the

* The book was published in Russian in 1989 (Nauka, Leningrad). —Ed.

whole of the earth is man's habitat. And it should not be thought that there are 'virgin lands' anywhere, where man's foot has not trod. Present deserts and jungle are full of traces of Palaeolithic campsites; the forests of the Amazon grow on redeposited soils once disturbed by the farming of ancient inhabitants; traces of structures we do not understand have been discovered on the rocks of the Andes and Himalayas. In other words, the species *Homo sapiens* has repeatedly and constantly, during its existence, modified its distribution over the earth's surface. And like any other species it has striven to master the greatest possible space with the greatest possible density of population.¹⁴ But something has prevented it and limited its opportunities. What was it?

Unlike most mammals *Homo sapiens* cannot be called either a gregarious or an individual animal. Man lives in collectives that are regarded, depending on the point of view, sometimes as a socium, sometimes as an ethnos. Or rather each human being is simultaneously a member of a society and a representative of an ethnic national group, but these two concepts are incommensurable and lie on different planes, like length and weight, for example, or a degree of heat and an electrical charge.

Mankind's social development has been well studied, and its regularities formulated, by historical materialism. A spontaneous development of social forms through socio-economic formations is inherent only in man, who lives in a collective, and is not linked in any way with his biological structure. This point is so clear that there is no need of labouring it. But the question of ethnic national groups, which I shall call *ethnoi* so as to avoid terminological confusion, is full of absurdities and is extremely confused. One thing is certain: there is no person on earth outside an ethnos. Everybody answers the question 'Who are you?' by 'a Russian', 'a Frenchman', 'a Persian', 'a Masai', etc., as a rule, without pausing for a minute to think. Conscious ethnic affiliation is consequently a universal phenomenon. But it has not always been so.

The definition of the concept 'ethnos'. What significance, or rather what sense, does any one of the people listed above attach to his reply? What he calls his people, nation, tribe, and what he sees as his difference from his neighbours, are still an unresolved problem of ethnic diagnostics. For an ordinary person the problem does not exist, just as he does not need a definition of the difference between light and dark, heat and cold, bitter and sweet. In other words, feeling functions as a criterion. That is sufficient for ordinary life, but not for understanding. There is a need for a defini-

tion. But that is where inconsistency arises. 'An ethnos is a phenomenon determined by community of origin'; 'an ethnos is the result of culture on the basis of a common language'; 'an ethnos is a group of people resembling one another'; 'an ethnos is a gathering of people united by common self-awareness'; 'an ethnos is an arbitrary, conventional classification grouping people according to some formation or other' (which means that the category of ethnos is not real); 'an ethnos is a result of the geographical environment, i.e. of nature'; 'an ethnos is a social category'.

Generalizing the views of Soviet scholars, diverse in details, on the relation of nature and social man, one can single out three points of view: (1) a 'single' geography reduces all man's activity to natural patterns; (2) some historians and ethnographers consider all phenomena connected with mankind to be social, making an exception solely for anatomy, and sometimes physiology; (3) manifestations of social form of the motion of matter are distinguished, plus a complex of natural forms (mechanical, physical, chemical, and biological), in the anthropogenic processes. The third conception seems to me to be the only correct one.

The point of view of M.I. Artamonov, a famous archaeologist and historian of the Khazars, has a special place. In his view, born of long concern with archaeological, i.e. dead, cultures and memorials that lack self-development, but are demolished by the course of time, 'ethnos, like class, is not a social organization but a state or condition' and 'man's dependence on nature is less, the higher his cultural level; that is a copybook maxim'. It is hard to agree with that.

Let me begin with the last thesis. Man's organism is part of Earth's biosphere and is involved in conversion of the biocoenosis. No one can prove that a professor breathes differently than a Bushman or reproduces in an asexual way, or is insensitive to the effect of sulphuric acid on his skin, that he can not eat or, on the contrary, will make a dinner of 40 persons, or that gravity affects him differently. And all that is the dependence on nature of the organism itself, which acts and thinks, is adapted to a changing environment, and itself alters the environment, adapting it to its needs, and is united in collectives, and creates states within them. The thinking individual constitutes a single whole with the organism, and does not therefore go beyond the limits of living nature, which is one of the envelopes of planet Earth.

But man differs from other animals in that he makes tools, creating a qualitatively different layer, the technosphere. The works of man's hands, from both inanimate and animate substances (tools, works of art, domestic animals, cultivated plants), fall out of the

cycle of conversion of the biocoenosis. They may only either be preserved or, being unconserved, are broken down and destroyed. In the latter case they are returned to the womb of nature. A sword dropped in a field becomes rusty, converted into iron oxide. A ruined castle becomes a mound. A feral dog becomes a wild animal, the dingo, and a feral horse a mustang. This is the death of things (of the technosphere) and nature's recapture of material stolen from her. The history of ancient civilizations shows that though nature suffers loss from technique, she ultimately takes her own back, with the exception, of course, of objects that are so transformed as to become irreversible. Such are the flint tools of Palaeolithic times, the polished slabs at Baalbek, concreted squares, and plastic articles. They are corpses, even mummies, that the biosphere is powerless to take back into its womb, but processes of inert matter (chemical and thermal) can return them to their original condition should our planet suffer a cosmic catastrophe. Until that happens they will be called memorials of civilization, because even our technique will one day become a memorial.

So the concept 'ethnos' is introduced into the problem of the relation of man, as the bearer of civilization, with the natural environment in the sense of a stable collective of individuals that opposes itself to all other similar collectives, that has an inner structure, in each case peculiar, and a dynamic stereotype of behaviour. It is through ethnic collectives that mankind's link with the natural environment is realized, since the ethnos itself is a phenomenon of nature.

Running ahead of my story, let me say that ethnoi are a phenomenon at the boundary of the biosphere and the sociosphere, that has a very special function in the structure of Earth's biosphere. Even though this seems a declaration, the reader for whom this book has been written now knows that the author is not trying simply to present a formulation but to show the whole way it was achieved and the grounds that convince him that the conception proposed meets all the demands made of scientific hypotheses at today's level of science. After that reservation we can now pass on to the system of proofs.

NOTES

¹V.I. Vernadsky. *Khimicheskoe stroenie biosfery Zemli i ee okruzheniya* (The Chemical Structure of Earth's Biosphere and Its Environment), Nauka, Moscow, 1965, pp 283-288.

²Giovanni Gentile. The Transcending of Time in History. R. Klibansky and H.J. Paton (eds.). *Philosophy and History. Essays presented to Ernst Cassirer*. Clarendon Press, Oxford, 1936, p 103.

³*Ibid.*, p 104.

⁴Wilhelm Dilthey's *Gesammelte Schriften*, Vol. 7. Verlag von B.G. Teubner, Leipzig, Berlin, 1927, p 161.

⁵Patrick Gardiner. *The Nature of Historical Explanation*. Oxford University Press, London, 1955, p 109.

⁶Anatole France. *Penguin Island*. Translated by A.W. Evans. The Sun Dial Press, Inc., New York, 1908, p VI.

⁷Karl Marx. Economic and Philosophic Manuscripts of 1844. Karl Marx and Frederick Engels. *Collected Works*, Vol. 3. Progress Publishers, Moscow, 1975, pp 303-304.

⁸Karl Jaspers. *Vom Ursprung und Ziel der Geschichte*. Artemis-Verlag, Zürich, 1949.

⁹N.Ya. Bichurin. *Sobranie svedenii o narodakh, obitavshikh v Srednei Azii v drevnie vremena* (Digest of Information about the Peoples Inhabiting Central Asia in Ancient Times), Vol. 1. Nauka, Moscow-Leningrad, 1960, p 175.

¹⁰See: L.N. Gumilev. *Khunny* (Hunni), Nauka, Moscow, 1960, pp 236-241.

¹¹See: L.N. Gumilev. *Khunny v Kitae* (The Hsiung Nu in China), Nauka, Moscow, 1974.

¹²Charles Diehl. *Les grands problèmes de l'histoire Byzantine*. Librairie Armand Colin, Paris, 1947, pp 9-10/X.

¹³*Ibid.*, pp 87-88.

¹⁴V.I. Vernadsky. Biosphere. *Izbrannye sochineniya v 5 tomakh*, Vol. 5. Izdatel'stvo Akademii Nauk SSSR, Moscow-Leningrad, 1960, pp 24-31.

ABOUT THE VISIBLE AND THE INVISIBLE

in which it is shown that superficial observations lead the investigator up the garden path, and means of self-control and self-checking are proposed

What It's About and Why It's Important

Fear of disenchantment. When a reader of our day buys and opens a new book on history or ethnography, he is not sure he will even read it to the middle. It may seem boring to him, mindless, or just not to his taste. Still it's all right for the reader; he's simply lost a few dollars or roubles. But what of the author? The collecting of information. The posing of the problem. Decades of searching for the answer. Years at his desk. Discussions with publishers' readers. Battle with the editor. And suddenly it's all to no purpose—the book isn't interesting! It lies in libraries ... and no one takes it out. Which means his life has been in vain.

That is so terrible that one must take steps to avoid such a result. But what steps? During his training at university and in postgraduate studies it is often hammered into the future author that his job is to copy out as many passages as possible from sources, to put them into some kind of order, and to draw a conclusion: in antiquity there were slaveowners and slaves. The slaveowners were bad-dies but things were good for them; the slaves were goodies, but it was tough for them.

All that, of course, is correct but that's the trouble. No one wants to read about that, even the author himself. First of all, because it is so well known, and secondly, because it does not explain, for example, why some armies won, and others were defeated, and why some countries grew stronger and others weaker. And, finally, why powerful ethnoi arose, and where they vanished to, although there was obviously no complete extinction of their members.

All these matters are wholly related to my chosen theme, i.e. the sudden strengthening of one people or another and their subsequent disappearance. A clear example of that is the Mongols in the twelfth to seventeenth centuries. But that pattern has also gov-

erned other peoples. The late B.Ya. Vladimirtsov formulated the problem succinctly: 'I want to understand how and why all that happened'; but like other scholars, he did not provide an answer. I shall come back to this subject time and again, firmly convinced that the reader will not shut the book at the second page.

Quite clearly, in order to solve the problem posed we must first of all investigate the method of research. Otherwise it would have been solved long ago, because the facts are so numerous that the point is not one of adding to them but of selecting those that relate to the matter in hand. Even contemporary chroniclers have drowned in a sea of information that has not brought them closer to understanding the problem. Archaeologists and chroniclers have assembled, published, and commented on much information over the past centuries, and orientalists have increased the stock of knowledge even more, codifying sources in various languages — Chinese, Persian, Latin, Greek, Armenian, and Arabic. The amount of information has grown, but has not developed into a new quality. It has still remained unclear how a small tribe sometimes gained hegemony over half the world, then increased in numbers, and later disappeared.

I have posed the question of the extent of our knowledge, or rather ignorance of the subject this study is devoted to.

On the Usefulness of Ethnography and the Difficulties to Be Surmounted

The dissimilarity of ethnoi. When a people has lived for a long time in its homeland it seems to its members that their mode of life, manners of behaviour, tastes, opinions, and social relationships, that is to say everything that is now called the 'stereotype of behaviour', are the only possible and correct ones. And if any deviations are encountered anywhere, it is because of 'ignorance', by which is often understood simply dissimilarity from themselves. I remember when I was a child and was fond of Mayne Reid, a very cultured lady said to me: 'Negroes are muzhiks just like ours, only black'. It could not have occurred to her that a Melanesian witch-doctor might say with equal grounds: 'Englishmen are headhunters just like us, only white'. Narrow-minded Philistine judgments sometimes seem internally logical, even though based on ignorance of reality. But they immediately crumble when confronted with it.

Ethnography was not topical for the mediaeval scholars of Western Europe. Europeans' communion with other cultures was

limited to the Mediterranean basin, on the coasts of which lived descendants of subjects of the Roman Empire, some of them converted to Islam. That, of course, separated them from the 'Franks' and 'Latins', i.e. from the French and Italians, but the existence of common cultural roots made the difference not so big as to exclude mutual understanding. But in the age of the great geographical discoveries the position was radically changed. While it then seemed justified to call Negroes, Papuans, or North American Indians 'savages', that could not be said of the Chinese, or about the Hindus, the Aztecs, or the Incas. Other explanations had to be found.

In the sixteenth century, European travellers and explorers, discovering lands remote for them, involuntarily began to look in them for analogies of the forms of life they were used to. The Spanish Conquistadores began to give baptized caciques the title 'Don', considering them Indian noblemen. The chiefs of Negro tribes were elevated to the rank of 'kings'. Tungus shamans were considered priests, although they were simply doctors who saw the cause of illness in the influence of evil 'spirits' that were just as material in their understanding as animals or members of other tribes. Mutual incomprehension was intensified by a conviction that there was nothing to understand, and then collisions occurred that led to the murder of Europeans who wounded the feelings of the aborigines, in response to which brutal punitive expeditions were organized. The civilized Australian aborigine Waipuldanya or Phillip Roberts relates stories of tragedies that were the more terrible that they happened without visible causes. Thus aborigines killed a white man who was smoking a cigarette, considering him a spirit that had fire in its belly. They ran another through with a spear because he had drawn a watch from his pocket and looked at the sun. The aborigines decided that he was carrying the sun in his pocket. Misunderstandings like that were followed by punitive expeditions that led to the extermination of whole tribes. And tragic collisions occurred for Australian Aborigines and the Papuans of New Guinea not only with whites but also with Malays, collisions that were aggravated by the transmission of infections.

Fairly recently, on 30 October 1968, on the bank of the Rio Negro, a tributary of the Amazon, the Indians killed a missionary and eight of his companions for nothing, from their point of view, but tactlessness. The padre, having come to the Atroari's country, announced his arrival by shots, which was improper according to their customs; he went into a small hut, despite the protest of its owner; he tweaked the ear of a child; and forbade them to take his saucepan of soup. Only the guide survived, who

knew the Indians' customs and abandoned Father Cagliari, who had paid no attention to his advice and had forgotten that the people who live on the banks of the Po were not quite like those on the banks of the Amazon.

Some time passed before it was asked whether it was not better to adapt oneself to the aborigines than to exterminate them. In order to do that, however, it was necessary to admit that peoples of other cultures differed from Europeans, and from one another, not only in languages and beliefs but also in the whole 'stereotype of behaviour', which it was a good idea to study so as to avoid conflicts. So ethnography arose, the science of the differences between peoples.

Colonialism has gone, under the blows of the national liberation movement, but interethnic contacts have remained and been extended. The problem of establishing mutual understanding has consequently become more and more urgent on both the global scale of world politics and the microscopic, personal scale during meetings with people who are not like us. And so a new question has been posed, a theoretical one despite its practical significance. But why are we, people, so unlike one another that we must adapt ourselves to one another? Must study others' manners and customs, look for acceptable ways of intercourse instead of those that seem natural to us, are quite adequate for intraethnic intercourse and satisfactory for contacts with our neighbours? In some cases ethnic dissimilarity can be explained by diversity of geographical conditions, yet it is also observed where climate and relief are similar. Obviously, one cannot do without history.

In fact various peoples arose in various ages and had different historical fates, which left traces on them as inefaceable as personal biographies that mould the character of individuals. The geographical environment influences ethnoi, of course, through man's everyday communion with the nature that feeds him, but that is not all. Traditions inherited from ancestors and traditional enmity or friendship with neighbours (the ethnic environment) play their role; cultural influences and religion have their significance, but in addition to all that there is the law of evolution or development, which applies to ethnoi just like other phenomena of nature. It is manifested in the multifarious processes of the rise and disappearance of peoples that I call ethnogenesis. Unless we allow for the peculiarities of this form of the motion of matter we cannot find the key to the riddle of ethnic psychology on either the practical or the theoretical plane. We need both, but unexpected difficulties crop up on the path I have elected.

The complexity of the terminology employed. The abundance of initial information and the poor development of the principles of systematizing are felt particularly painfully in history and ethnography. For the bibliography alone fills volumes, to look into which is sometimes no simpler than looking into the scientific problems themselves. The reader needs to be able to see the whole aggregate of events simultaneously (the principle of actualism), or all the modes of formation (the principle of evolutionism), and not a multi-volume list of the titles of articles and papers, for the most part out-of-date. The works of the founders of Marxism contain the programme of a systematic approach to understanding historical processes, but it has not yet been applied to questions of ethnogenesis.

Some attempts to introduce a systems method are known in old, often forgotten historiography but, in contrast to the natural sciences, their authors met with neither understanding nor sympathy. Polybius's conception is now regarded as an elegant rarity, ibn Khaldun's (fourteenth century) as a curiosity. Giovanni Battista Vico is remembered only in the history of science, while the grandiose, though perhaps unsuccessful constructions of N.Ya. Danilevsky, Oswald Spengler, and Arnold Toynbee have become an excuse for rejecting the construction of historical models in general. The result of this process is unambiguous. Since it is impossible to remember the whole concatenation of historical events and since there is not and cannot be a common terminology in the absence of a system, even communion among historians gets more difficult year by year.

By attaching various nuances to terms and investing them with a different content, historians convert them into polysemantic words. In the first stages of this process the speakers can be understood from the context, intonation, and situation in which the dispute is conducted, but in the last phases this unsatisfactory degree of understanding disappears. So the Russian word *rod* (gens, family) is usually employed for the concept 'clan or gentile system', but the 'clan (*rod*) of the Shuisky boyars' clearly has no relation to that. It is even worse with translation: if a clan (gens) is a Celtic clan, it is impossible to call any Kazakh branch of the Middle or Junior *Zhus (ru)* such, or the Altain *kost (seok)*, and vice versa, because they differ in functions and genesis. Yet all these, by no means dissimilar phenomena are named identically and, worse, are equated on that basis with one another. Willy-nilly the historian studies not the object but words that have already lost their meaning as real phenomena, while the latter elude him. Let us now assume that three historians are discussing a problem, one of them investing the con-

cept 'gens' with the sense of clan, the second of *seok*, the third of the boyar family. Obviously they not only will not understand one another, but even what they are talking about.

It may be objected, of course, that agreement can be reached about terms, but the number of concepts increases proportionately with the accumulation of information; ever new terms are appearing that, in the absence of a system, become polysemantic and consequently useless for analysis and synthesis. But a way out can also be found here.

So far I have been speaking of the conditions of research; let me now speak about its perspectives. Study of any subject only has practical significance when it is possible to survey it as a whole. The electrical engineer, for example, must deal with the phenomena of ionization and thermal efficiency, the electromagnetic field, etc., but not to the same degree; the physical geographer, when speaking of Earth's envelopes, has in mind the troposphere, hydrosphere, lithosphere, and even the biosphere. But the historian can only draw conclusions that are more weighty and interesting for the reader when he covers a broad complex of interconnected events in a single argument, at the same time reaching agreement on terminology. It is difficult, but not impossible. It is simply important for the conclusions to correspond to all the facts taken into consideration. If anyone puts forward a more elegant and convincing conception for the facts cited in my book, I shall bow to him with respect. But if, on the contrary, anyone declared my conclusions final, not requiring review and further elaboration, I would not agree with him. Ordinary books do not live longer than people, and the development of science is an immanent law of the shaping of mankind. I therefore see it as my job to pay what honour I can to Beautiful Lady History, without whom no people can exist, and to her Wise Sister Geography, who creates people's bond with their ancestress, the Biosphere of Planet Earth.¹

Summaries and scruples. The species *Homo sapiens*, which has spread over the whole land surface of the planet, and a considerable part of its marine surface, has made such significant changes in its configuration that they can be equated with small scale upheavals.² But it follows from this that we distinguish a special historico-geographical category of laws that requires a special method for examining and studying them that combines historical and geographical techniques of research. In itself that is nothing new, but the approach to the problem has so far been eclectic: the use of C¹⁴ analysis, for example, to date archaeological finds, of resistivity

prospecting (a business too laborious for practical application), and of cybernetic techniques to study 'stone Venuses' (which has given the same results as visual estimates), and so on. But the most important thing has been lost sight of! In my view this 'main point' is the ability to extract information from the silence of the sources. The inductive way limits the historian's opportunities to a simple or critical rendering of foreign words, the limit of the investigation moreover being distrust of the source. But this result is negative and therefore not conclusive. Only the establishing of a certain number of indisputable facts will be positive, and these, being derived layer by layer from the source, can be reduced to a chronological table or plotted on a historical map. In order to interpret them, a philosopheme or postulate is needed, but that infringes the accepted principle of inductive research. A blind alley!

So! But the geographer, geologist, zoologist, and soil scientist never have more facts, yet their sciences develop which happens because natural scientists employ 'empirical generalization' instead of a philosophical postulate and it, according to Vernadsky, has a reliability equal to observed fact.³ In other words, the natural sciences overcome the silence of the sources and even extract something useful for science from it, since they avoid the false that is always contained in a source or introduced by ourselves through inadequate perception. So why reject sources because of that? When taking nature as a source we also have to resort to a method of study, but that gives us wonderful prospects that enable us to lift the veil of Isis.

One of the tasks of science is to obtain the maximum information from a minimum of facts, to make it possible to single out precise patterns that enable the most varied phenomena to be understood from a single point of view, and subsequently learn to find one's bearings in them. These patterns are invisible but not invented. They are discovered through generalization. Let me give an example from biology.

Stars and planets move across the sky. Balloons rise, but a stone dropped from a cliff falls in space. Rivers run to the sea, and sediments slowly settle in the ocean forming layers of sedimentary rocks. Mice have very thin paws and elephants huge extremities. Land animals do not attain the size of whales and giant squid. What do these facts have in common? They are all based on the law of universal gravitation, which is intertwined with other laws, just as real, invisible, but mentally comprehensible.⁴

Terrestrial gravitation has always existed but it needed the insight of Newton observing the fall of an apple from a branch for people to recognize its existence. And how many other powerful forces of

nature that surround us and govern our fate lie outside our understanding. We live in an underdiscovered world and often move feeling our way, which sometimes leads to tragic consequences. That is why the magic eyes of science, by which I mean the insight of scientists of genius, are needed in order to understand the world around us and our place in it, and to learn to foresee even the immediate consequences of our actions.

Studies to establish the functional link of phenomena of physical geography and palaeontology in material of the history of Central Asia and the archaeology of the Lower Volga, enable us to draw three conclusions. (1) The historical fate of an ethnos resulting from its economic activity is directly linked with the dynamic state of the area occupied. (2) The archaeological culture of an ethnos, which is a crystallized trace of its historical fate, reflects the palaeogeographical state of the terrain in an era amenable to absolute dating. (3) The combination of historical and archaeological material makes it possible to judge the character of the areas occupied in one age or another, and consequently the character of their changes.

Precision is relative here, of course, but a tolerance of plus or minus 50 years for diffuse boundaries does not affect the conclusions and is consequently innocuous. Much more dangerous is the striving for scrupulousness in the direct sense of the word.

Scrupulus (Lat.) means a bit of grit that has got into a sandal and is irritating the sole of the foot. The ancients considered it is senseless business to study the distribution of these grits; one simply had to take off one's sandal and shake it. The word 'scrupulousness' therefore meant unnecessary concern about trifles. Now the word is used in the sense of 'superexact'.

Unfortunately the demand for 'scrupulousness' is not always innocent and harmless, in particular when natural phenomena are being correlated with historical events, because the legitimate tolerance may be as much as 50 or 60 years, and cannot be reduced since the link being sought is mediated by the economic geography of ancient epochs. The system of livelihood, cultivation, stock-breeding, or even hunting, has its own inertia. If it is undermined, say, by drought, the state founded on it is only weakened when reserves are exhausted, and the constant malnutrition (and not short-term famine) undermines the strength of the reproductive population. This process can only be discovered through a broad integration of a number of historical events, and not by a scrupulous correlating of natural and historical phe-

nomena. In that connection one must remember the words of a famous natural scientist:

You could never learn what a mouse is like by carefully examining each of its cells separately under the electron microscope any more than you could appreciate the beauty of a cathedral through the chemical analysis of each stone that went into its construction.

Of course, when we examine one or even two facts in isolation from others, we remain trapped by old authors who were able to impose their opinion with skill and talent on the reader. But when we extract direct information from sources, and take not two facts but 2 000, we then get several causal chains that not only correlate with one another but also with the model we propose. It is not a simple functional dependence like that sought in the eighteenth century by champions of geographical determinism like Montesquieu. Here we find a systemic link, underlying the science of the relationship of mankind and nature.

The universality and specificity of the interaction I have noted makes it possible to single out study of it as an independent boundary field of science, and as a combination of history and geography, called ethnology. But here there is a new sore point. Can we find a tangible definition of ethnos?

Limits. What do we know precisely about ethnoi? Very much and very little. We have no grounds for asserting that an ethnos occurred as a phenomenon in the Lower Palaeolithic. Behind the high brow ridges, and within the huge brainbox of Neanderthal man, were lodged thoughts and feelings. But what they were we still have no right even to guess if we want to remain on a platform of scientific authenticity and reliability. We know more about the people of the Upper Palaeolithic. They were splendid hunters, made spears and javelins, dressed in clothes of animal skins, and drew no worse than the Parisian Impressionists. The form of their collective life was seemingly similar to those that are known to us, but that is only a supposition on which we cannot even build a scientific hypothesis. It is not excluded that there were features in ancient times that have not come down to us.

But we can consider the peoples of the Late Neolithic and Bronze Ages (third and second millennia B.C.) similar to historical ones with a high degree of probability. Unfortunately, our knowledge of the ethnic differences then is fragmentary and scanty, so that if we rely on it we risk not distinguishing the patterns that in-

terest us at the moment from local features and, by taking the particular for the general or vice versa, falling into error.

So-called historical time gives us reliable material for analysis, when written sources throw light on the history of ethnoi and their interconnections. We have the right, when studying this period of time, to apply the observations obtained to earlier times and to fill the gaps in our knowledge arising in the first stage of study by extrapolation. We thus avoid the aberrations of distance, one of the most frequent mistakes of the historical critic.

It is convenient to take the beginning of the nineteenth century as the upper date because we need only completed processes in order to establish patterns. One can only speak of uncompleted processes for purposes of forecasting, but for that we have to have a formula of regularity available — the same as the one we are looking for. In addition, when we are studying twentieth-century phenomena, there is the possibility of an aberration of propinquity by which phenomena lose scale just as with the aberration of distance. I shall therefore limit myself to the 3 000 years between the twelfth century B.C. and the nineteenth century A.D., for posing the problem, or for clarity of representation, from the fall of Troy to the overthrow of Napoleon.

To begin with I shall investigate our abundant material by a synchronic method, basing myself on a comparison and collation of information about whose reliability there is no doubt. The new element that I shall decide to introduce will be the combining of facts in the aspect I propose. That is necessary because the kaleidoscope of dates in the various chronological tables does not give the reader any idea of what happened with peoples throughout their historical life. The method proposed is not as characteristic of the humanities as it is of the natural sciences. Empirical generalization is neither a hypothesis nor a popularization, although it is built on facts already assembled and tested rather than on original material (experience, observation, and reading of primary sources). The introduction of material into the system and the construction of a conception is the middle stage of comprehension of the problem that precedes philosophical generalization. For my purposes I need precisely this middle stage.

It would seem that the more detailed and numerous the information about a subject the easier it is to form an exhaustive idea of it. But is that so in fact? Most likely not. Unnecessary and too fine information, while not altering the picture as a whole, creates what they call 'noise' or 'interference' in cybernetics and the study of systems. But for other purposes it is precisely nuances of mood that

are needed. In short, in order to clarify the nature of phenomena one must take in the whole concatenation of facts relating to the problem under consideration, but not all the information available in the arsenal of science.

But what are we to take as 'relating to the problem'? The answer will obviously be different in different cases. The history of mankind and the biographies of famous people are not equal phenomena, and the pattern of development will be different in both cases, but there are as many gradations as you like between them. The point is complicated by the fact that any historical phenomenon (war, the promulgation of a law, the building of an architectural monument, the founding of a principedom or republic, and so on) has to be treated in several degrees of approximation, the comparison of which, moreover, yields contradictory results at first glance. Let me take an example from the history of Europe. After the Reformation a struggle began between the Protestant Union and the Catholic League (approximation A). Consequently all the Protestants of Western Europe should have been battling against all the Catholics. But Catholic France was a member of the Protestant Union, and Protestant Denmark stabbed Protestant Sweden in the back in 1643, i.e. political interests were put before ideological ones (approximation B). Does that mean that the first statement was not true? By no means. It was only more generalized. In addition, mercenaries fought in the armies of both sides, for the most part indifferent to religion, but avid for plunder. That means that one could characterize the Thirty Years' War in the next approximation (C) as an orgy of banditry, and that, too, would be to some extent correct. Finally, real class interests lay behind the religious slogans and the golden diadems of kings, interests it would be wrong not to take into account (approximation D). And one can add to that the separatist tendencies of the different, separate regions (approximation E) discoverable by palaeoethnography, and so on.

As will be seen from this example, the system of successive approximations is a complicated business, even when we are investigating a local episode. Nevertheless we need not lose hope of success, because there remains the path of scientific deduction. Just as the motion of Earth is composed of many regular motions (rotation around its axis, rotation around the sun, movement with all the planets of the solar system through the galaxy, and many others), so mankind, the anthroposphere, experiences in developing not one but several effects that are studied by separate sciences. The spontaneous movement, reflected in social development, is studied by historical materialism; human physiology is a field of biology; man's

relation with the landscape—historical geography—lies in the sphere of the geographical sciences; the study of wars, laws, and institutions is political history, and of opinion and thoughts the history of culture; the study of languages is linguistics, and of literary creation philology, and so on. Where does our problem fit in?

Let me begin with the point that an *ethnos* (any one), like a language, for example, is not a social phenomenon, because it can exist in several formations. The influence of spontaneous social development on the moulding of an *ethnos* is exogenous. In order to affect the forming or the break-up of an *ethnos*, social development operates through history, both political and cultural. One can therefore say that the problem of ethnogenesis lies on the boundary of historical science where its social aspects pass smoothly into the natural ones.

Since all phenomena of ethnogenesis originate on the earth's surface in certain geographical conditions, the question of the role of terrain and relief inevitably arises, as a factor presenting economic opportunities for human collectives (*ethnoi*).⁶ But the combination of history and geography is not sufficient for my problem because it is a matter of living organisms which, as we know, are always in a state of evolution or involution, or monomorphism (stability within the species), and interact with other living organisms, forming communities, and *geobiocoenoses*.

I must thus put my problem at the junction of three sciences: history, geography (study of relief), and biology (ecology and genetics). But that being so, we can make a second approximation of the definition of the term '*ethnos*': an *ethnos* is a specific form of existence of the species *Homo sapiens*, and ethnogenesis is a local variant of the intraspecific form-making determined by a combination of historical and choronomic (landscape) factors.

The aspect in which mankind appears as an *anthropofauna* may seem extravagant, but Darwin and Engels laid the foundations for such a study. Following the scientific tradition, I shall turn my attention to this aspect of human activities which has been missed by most of my predecessors.

'The historian without geography stumbles'. Man's dependence on the world around him, or rather on his geographical environment, is never disputed, although the degree of dependence is assessed differently by different scholars. In any case, however, the economic life of the peoples who have inhabited Earth and now live in it is closely linked with the relief and climate of the territories inhabited. It is quite difficult to trace the rise and decline of the econ-

omy of ancient periods, again because of the incompleteness of the information obtained from primary sources. But there is an excellent indicator—military power. As for modern times, there are no doubts whatsoever about that, but for 2 000 years matters remained precisely the same, for nomads as well as for settled peoples. Not only were well-fed, strong, tireless people needed for a campaign, capable of drawing a bow 'to the ear' (which enabled an arrow to be shot for 700 metres while with drawing 'to the eye' the range of an arrow was 350-400 metres), and of fencing with a heavy sword or (much harder) with a curved sabre. It was also necessary to have horses, roughly four or five per man, taking the waggon train or pack train into account. A stock of arrows was needed, and making them was a laborious business. Stocks of provisions were needed, for example, for nomads, a flock of sheep and consequently shepherds for it. A reserve guard was needed to protect women and children. In short, war required funds even then, and big ones at that. It could only be waged at the enemy's expense after the first, considerable victory; and in order to win it a strong rear was required, a prosperous economy, and consequently optimum natural conditions.

The significance of geographical conditions, for example, relief, for military history has long been talked about, always, one might even say. Suffice it to recall some examples from ancient history. Hannibal won the battle of Lake Trasimene by making use of several deep valleys disposed at right angles to the lake's shore and the road along which the Roman troops passed. Thanks to that he attacked the Roman army in three places at once and won the battle. At Cynoscephalae the Macedonian phalanx was scattered on broken ground, and the Romans easily broke the heavily armed enemy, who had lost formation. Examples like these have always been in historians' field of vision and gave the eighteenth-century Russian scholar Ivan Boltin grounds for a famous comment: 'The historian who is not strong in geography stumbles'.⁷ But it is pointless to dwell on such an obvious problem in the twentieth century, because history is now faced with more profound tasks than it used to be, while geography has moved away from simple description of the marvels of our planet and has acquired possibilities that were inaccessible to our ancestors.

I shall therefore put the question differently: not only how does the geographical environment affect people but also how far do people themselves constitute part of the envelope of Earth that is now called the biosphere; and also to what extent, precisely, do the patterns of mankind's life influence the geographical environment

and to what extent do they not. That posing of the matter calls for analysis, i.e. an artificial breaking down of the problem for convenience of investigation. It consequently has only subsidiary significance for understanding history, since the aim of our work is a synthesis. Alas, however, just as one cannot build a house without a foundation so it is impossible to generalize without preliminary differentiation. Let us limit ourselves to the minimum. When we speak of the history of mankind we usually have in mind the social form of the movement of history, i.e. mankind's progressive development, as a whole, along a spiral. This is a spontaneous movement and for that reason cannot be a function of any external causes whatsoever. Neither geographical nor biological effects can influence that aspect of history. So what do they influence? Organisms including human ones. L.S. Berg had already drawn that conclusion in 1922, legitimate for all organisms, including people.

The geographical landscape necessarily affects the organism, compelling all individuals to vary in a certain direction insofar as the organization of the species permits. The tundra, forest, steppe, desert, mountains, water medium, life on islands, etc. all put a special stamp on organisms. Those species that are incapable of adapting must migrate to another geographical terrain or perish.⁸

But by 'terrain' is meant

a sector of the earth's surface that differs qualitatively from other sectors, framed by natural boundaries, and representing a whole, and reciprocally conditioned, natural aggregate of objects and phenomena typically expressed over a considerable area and inseparably linked in all respects with the topographical envelope.⁹

Berg called this thesis the choronomic principle of evolution (from the Greek *choros*, place), so linking geography and biology. In the aspect I have adopted history is added to these two sciences, yet the principle remains unshakeable. Furthermore it has received unexpected confirmation, and that obliges me to continue the examination of an ethnos's patterns of development, but now with allowance for the dynamic moment, the development of new ethnoi, i.e. of ethnogenesis, on the basis of a description of the *phases of ethnogenesis*. But that is the theme of another chapter.

Nature and History

The combination of nature study and history. In antiquity, when the world seemed a whole to man, in spite of its obvious diversity, and

interconnected, in spite of the seeming isolation, the problem of coupling natural science and history could not even arise. All events considered worthy of perpetuation were entered in the annals. Wars and floods, revolutions and epidemics, the birth of a genius and the flight of a comet were all considered phenomena of equal significance and interest for posterity. The principle of the magi then prevailed in scientific thought, viz., 'like breeds like', which made it possible, through broad associations, to catch the connections between phenomena of nature and the fates of people or of individual persons. That principle was developed into astrology and *mantiké* (the lore of divination), but with the development of the separate sciences, as knowledge accumulated, it was discarded as unsound, and not substantiated in practical application.

In the eighteenth and nineteenth centuries, thanks to the differentiation of the sciences, a huge amount of information was accumulated, which had become vast by the beginning of the twentieth century. Figuratively speaking the mighty river of Science had been diverted into irrigation ditches. Life-giving moisture watered a broad area, but the lake previously fed by it (i.e. integral world-contemplation) dried up. And now the autumn wind drifts the bottom sediments and blows salty dust onto the friable land of fields. Soon, in the place of steppe which, even though dry, fed herds, salt marshes arise, and the biosphere gives way to inert matter, not forever, of course, but for a long time. For when people quit a doomed land, the ditches begin to silt up, and the river again cuts a channel, and fills a natural depression. The wind blows a fine layer of fresh dust over the salt marshes, grasses sprout and die, uneaten by ungulates. In a few centuries a humus layer is formed on the plain, and plankton in the lake; then herbivores arrive, and waterfowl carry fish spawn to the lake on their feet. Life again triumphs in its diversity.

So it is in science. Narrow specialization is only useful as a means of accumulating knowledge. The differentiation of disciplines was a stage, necessary and inevitable, that inevitably becomes disastrous when dragged out for a long time. Accumulation of information without its systematization into an object of broad generalization is a quite senseless task. Were the principles of ancient science indeed false? Perhaps its unsoundness was not rooted in its postulates, but rather in lack of skill in applying them. For there is an interaction 'of the history of nature and the history of men' that can be caught by employing the total of accumulated knowledge and a method of research that is developing under our eyes. So I shall endeavour to follow this path and to formulate the

problem as follows: can the study of history be of benefit for interpreting phenomena of nature?

Social and natural phenomena are obviously not identical, but they do have a point of contact somewhere. And it is necessary to find it, because it cannot be the anthroposphere as a whole. Even if we understand the anthroposphere as the biomass, we must note two aspects of the phenomenon: (a) its *mosaic structure*, because various collectives of people interact differently with the environment; if we take into account the well-known history of the past 5 000 years, this diversity and elucidation of its causes will prove the key to the problem posed; (b) the *many-sided character* of the object being studied, i.e. mankind. This has to be understood in the sense that every person (or mankind as a whole) is a physical body, and an organism, and the upper link of any biocoenosis, and a member of a society, and a member of a people or ethnic national grouping, and so on. In each of these the object (in this case man) is studied by a corresponding scientific discipline, which does not deny other aspects of research. It is the ethnic aspect of mankind as a whole that is important for my problem.

Let me make a slight excursus into epistemology. Ask yourself what is accessible to direct observation. It is not the object itself, but the limits of object. Thus we know that time, as a category, exists, but unless we see its limits we have no chance of giving a generally accepted definition of time. And the greater the contrast, the clearer objects are for us that we do not see but dream up, i.e. imagine.

We constantly observe history as a chain of events; consequently history is a boundary. Happily we know of what – the social and the four natural forms of the motion of matter. That being so there is, together with the sociosphere and the technosphere generated by it, a living essence that not only surrounds people but is also within them. And these elements are so contrasty that they are caught by human consciousness without the least effort. Humanitarian conceptions have proved unnecessary, or rather inadequate, precisely because they pose the question of the influence on the historical process, or processes, of geographical, biological, social, or (in idealist systems) spiritual factors, and not of the connection of the one and the other, thanks to which both the process itself and its components become accessible to empirical generalization. The approach suggested here is nothing other than the analysis, i.e. ‘breaking down’, needed to untangle the unclear places in history and then pass on to a synthesis in which the results of the various methods of research are taken into account.

In the historiography of the nineteenth century the interaction of the social and natural was not always allowed for.¹⁰ But now the dynamics of natural processes has been sufficiently studied for their comparability with social events to be obvious. Biocoenology has shown that man enters the biocoenosis of the terrain as an upper final link, because he is a major predator and, as such, is dependent on the evolution of nature, which by no means rules out the existence of an additional element, i.e. the development of the productive forces, which produce the technosphere, lacking self-development and capable only of disrupting.

Formations and ethnoi. If, however, we look at all world history, we will note that coincidences of changes of formation and the appearance of new peoples are only rare exceptions, while ethnoi very dissimilar to one another constantly arise and develop within a formation.

Take the example of the thirteenth century when feudalism flourished from the Atlantic to the Pacific. The French barons were hardly like the free peasants of Scandinavia, the slave-warrior Mamelukes of Egypt, the unruly population of the Russian *veche* towns, the indigent conquerors of half the world, the Mongol nomads, or the Chinese landowners of the Sung Empire. Common to them all was the feudal mode of production, but little else. Agriculturists' and nomads' attitudes to nature did not coincide; receptivity of things foreign, or capacity for cultural borrowings, was higher in Europe than in China, no less than the striving for territorial conquests that stimulated the Crusades; Russian slash-and-burn agriculture was simpler and more primitive than the viticulture of Syria and the Peloponnese, but yielded a fabulous harvest with less expenditure of labour; languages, religion, art, education were all unlike each other, but there was no confusion in this diversity because each life style was the property of a definite people.

It should not be thought, however, that the degree of ethnic individuality is determined only by nature. Centuries passed and the relations of ethnoi changed, some disappearing, others appearing; it is accepted in Soviet ethnography to call that process ethnogenesis. The rhythms of ethnogenesis are coupled in world history with a pulse of social development, but the coupling does not mean coincidence, let alone unity. History is a single process, but its factors are different, and my task, i.e. analysis, is to single out the phenomena directly inherent in ethnogenesis, and so to clarify what an ethnos is and what its role in the life of mankind.

It is necessary, to start with, to agree on the meaning of the terms and the limits of the investigation. The Greek word *ethnos* has many meanings in the dictionary, of which I have chosen one, viz., 'species, breed', implying by that people. There is no point, for my posing of the theme, in singling out such concepts as tribe or nation, because I am interested in the common denominator; in other words the general that exists among Englishmen and among Masai, among ancient Greeks and modern Gipsies. This is the property of the species *Homo sapiens* to group together so as to counterpose themselves and 'theirs' (sometimes close, but often quite remote) to all the rest of the world. This singling out is characteristic of all epochs and countries: Hellenes and barbarians, Jews and the uncircumcised, Chinese (people of the Middle Kingdom) and Hu (the barbarian periphery, Russians included), Muslim Arabs in the time of the first Caliphs and 'infidels'; Catholic Europeans in the Middle Ages (the unity called the 'Christian world') and 'godless', including Greeks and Russians; 'Orthodox' (in the same period) and unbaptized, including Catholics; Tuaregs and non-Tuaregs, Gipsies and all other people, etc. This opposition is a universal phenomenon, which indicates its deep foundation, but in itself it is only the foam on a deep river, and I have still to bring out its essence. But the observation already made is enough to attest the complexity of the effect which can be called ethnic (in the sense 'stock' or 'breed') and which can be taken as an aspect for constructing an ethnic history of mankind. My task is therefore first of all to find the cause of the process.

There is an undoubted link between ethnic history and geography, but it cannot exhaust the whole complexity of the relationship of the diverse phenomena of nature and the zigzags of the history of ethnoid. Furthermore, the thesis: 'Any attribute by which ethnoid can be classified is adaptive to a concrete environment' reflects only one aspect of the process of ethnogenesis. As Hegel wrote: '...the mild Ionic sky certainly contributed much to the charm of the Homeric poems, yet this alone can produce no Homers'.¹¹

However, when an *ethnos* that has taken shape in a definite region where adaptation to the terrain has been maximum migrates, it retains many of the original features that distinguished it from the aboriginal ethnoid. The Spaniards who settled in Mexico, for example, did not become Indians—Aztecs or Mayas. They created an artificial microlandscape for themselves—towns and fortified haciendas—and preserved their culture, both material and spiritual, in spite of the fact that the moist tropics of Yucatan and the semideserts of Anáhuac were very different from Andalusia and

Castile. But the separation of Mexico from Spain in the nineteenth century was largely the work of the descendants of Indian tribes that had adopted the Spanish language and Catholicism, but that were supported by the free tribes of the Comanche who had migrated north of the Rio Grande.

Let me now draw a first conclusion, which will be the starting point for the further exposition. The mosaic anthroposphere, which has been constantly changing in historical time and interacting with the topography of planet Earth, is nothing else than an ethnosphere. Since mankind has spread everywhere, though unevenly, over the land surface, and always interacts with Earth's natural environment, but differently, it is sensible to treat it as one of Earth's envelopes, but with an obligatory correction for ethnic differences. So I am introducing the term 'ethnosphere' which, like other geographical phenomena, must have its own patterns of development, different from the biological and the social. Ethnic patterns are observable in space (ethnography) and in time (ethnogenesis and the palaeogeography of the anthropogenic landscape).

Can one trust the historical sources? Yatsunsky, the author of fine surveys of the geographical thought of the fifteenth to eighteenth centuries, justly remarked: 'Historical geography does not study the historical ideas of people of the past but the concrete geography of past centuries'.¹² The initial data for this quest obviously have to be sought in the historical works of past ages, but how? Unfortunately, there are no pointers to a possible method of research. And here is why.

Historical materials, as sources for the reconstruction of ancient climatic conditions, have been and are employed very widely. A famous polemic developed on this plane between Berg¹³ and Grumm-Grzhimailo¹⁴ on the desiccation of Central Asia in the historical period. They tried to solve the problem of the fluctuations of the level of the Caspian Sea in the first millennium A.D. associated with this question by selecting citations from the works of ancient authors. Special digests of information from Russian chronicles were made so as to draw conclusions about the change in Eastern Europe's climate. But the results of the numerous, laborious studies did not come up to expectations. The information of the sources was sometimes confirmed, but tests by other ways sometimes refuted them. Hence it follows that the coincidence of the data obtained with the truth was a matter of chance, which suggested that the method was defective. In fact the method of simple references to the evidence of an ancient or mediaeval author leads

to a false conclusion, or at best to an inexact one. And so it should. The chroniclers either mentioned phenomena of nature among others or, starting from the ideas of the science of their time, treated storms, floods, and droughts as omens or punishment for sins. In both cases the phenomena were described selectively, when they came into an author's field of view, and we cannot even guess how many got left out. One author would draw attention to nature, but another, in the next century, did not; and it could turn out that rains were mentioned more often in a dry time than in a wet one. The historical criticism is unable to help here because it is powerless as regards omissions of events not linked by a causal dependence.

Ancient authors always wrote their works with a definite purpose and, as a rule, attached exaggerated importance to events that interested them. The degree of exaggeration or belittling is very difficult to determine, and is not always possible. So Berg concluded, from historical works, that the conversion of cultivated land into desert was a consequence of wars. That idea is now taken without criticism; P.K. Kozlov's find, the dead Tangut city of Yijing-ai, known as Hara-Hoto,¹⁵ is often cited as an example. This is so significant a point that I shall concentrate attention on one problem, the geographical location of this city and the conditions of its death.

The Tangut kingdom was located in the Ordos and the Ala-Shan, in places where there are now sandy deserts. This state, it would seem, was poor and thinly populated, but in fact it maintained an army of 150 000 horsemen, had a university, an academy, schools, a legal procedure, and even a trade deficit, because it imported more than it exported. The deficit was covered in part by gold dust from its Tibetan possessions; the main export was live cattle, which constituted its wealth.

The city discovered by Kozlov lay in the lower reaches of the Edzin-Gol, in a locality now uninhabited. The two ox-bow lakes that surround it on the east and west indicate that there used to be water, but the river changed course to the west and now falls by two arms into lakes (a salt one—Gashun Nor, and a fresh one—Sogo Nor). Kozlov described the valley of the Sogo Nor as a freshwater oasis in the desert surrounding it, but noted at the same time that it could not feed a large population. But the citadel of Hara-Hoto alone is a square with sides of 400 metres. Around it there are traces of lesser structures and fragments of ceramics that indicate the existence of handicraft suburbs. The destruction of the city is often ascribed to the Mongols. In fact Genghis-khan took the Tan-

gut capital in 1227 and the Mongols brutally made short work of its population. But the city discovered by Kozlov continued to exist still in the fourteenth century, as is attested by the dates of the many documents found by members of the expedition. Then the end of the city was linked with the change in the river's course, which was diverted by the besiegers, according to Torgod folk traditions, by means of a dam made of sandbags. The dam has survived to the present in the form of a wall. So, it seemingly existed, but the Mongols had nothing to do with it. In the descriptions of the capture of the city of Urahai (Mongolian) or Heshuicheng (Chinese) there is no such information. And it would simply have been impossible, since the Mongol horsemen were not equipped with the necessary trenching tool. The death of the city was ascribed to the Mongols by an evil tradition that began back in the Middle Ages of ascribing everything bad to them. In fact the Tangut city perished in 1372 and was captured by Chinese troops of the Ming Dynasty, who were then waging war against the last of the Genghisites, and was laid waste as a base of Mongols who were threatening China from the west.

But why didn't it revive? The change in the river's course was not the reason, since the city could have migrated to another tributary of the Edzin-Gol. An answer to that can be found in Kozlov's book. With the powers of observation characteristic of him, he noted that the amount of water in the Edzin-Gol had got less, and the lake Sogo Nor had grown shallower, and overgrown with reeds. The shifting of the river bed to the west had played a certain role in that, but it alone could not explain why the country had fed a huge population in the thirteenth century, but had been converted into a sandy desert at the beginning of the twentieth.

So the blame for the desolation of the cultivated land of Asia does not fall on the Mongols but on changes of climate which I have described in special works.¹⁶

Can we believe the memorials? But why were Genghis-khan and his sons blamed for the devastation of Asia, while other events of a much greater scale (for example, the defeat of the Uighurs by the Kirghiz in A.D. 841-846, or the general extermination of the Kalmycks by the Manchurian emperor Ch'ien Lung in 1756-1758)¹⁷ have remained outside historians' field of view?

The answer has to be sought in historiography rather than in the history of peoples. Talented books on history are not often written, in any case, and besides do not all come down to us. In the Near East the age of the fourteenth and fifteenth centuries was a period

of the flowering of literature, but the struggle against the Mongol yoke both in Persia and in Russia then was the most pressing problem, and a host of works was devoted to it there that have survived to our day. Among them were both talented and brilliant works, judging by those that have come down to us. They evoked imitations and repetitions, which increased the total number of works on this question. The extermination of the Oirats did not find its historian, or he perished in the massacre. Thus, it turned out, events were not illuminated uniformly and their significance was distorted, since they were presented, as it were, on different scales. Hence, too, a hypothesis arose that ascribed the almost total annihilation of the population of the lands conquered by Genghis-khan, and the complete alteration of the landscape, to his hordes, which by no means corresponds to the truth. It should be noted that the maximum desiccation did not occur in countries ravaged by the hordes, but in Uighuria, where they were not at all, and Jungaria, where no one decided to destroy the grassy steppeland. The historical and geographical information of the sources is consequently unreliable.

And, finally, it is tempting to consider tremendous historical events, like the Mongols' campaigns of the thirteenth century, as migrations. The eminent British scholars Ellsworth Huntington and C.E.P. Brooks, for example, yielded to this temptation. But the Mongol campaigns were not associated with migrations. The victories were not won by crowds of nomads but by smallish, beautifully organized mobile detachments that returned to their native steppes after the campaigns. The numbers on the move were insignificant even for the thirteenth century. The khans of the Juchid branch, for instance, Batu, Orda, and Shayban, received by Genghis-khan's will only 4 000 horsemen, i.e. around 20 000 persons, who were settled over a territory from the Carpathians to the Altai. The real migration of the Kalmycks in the seventeenth century, on the contrary, remained unnoted by most historians because it did not have great resonance in works of world history. Consequently, a more solid knowledge of history is required, in order to tackle the problem posed, than what is readily derived from summary works, and a more detailed knowledge of geography than that to which historians or agricultural economists usually limit themselves. The main point is that it is necessary to extract reliable information from the subjective perceptions characteristic of many authors of written sources from Herodotus to our day.

We are well acquainted with the dates and details of battles, peace treaties, palace revolutions, and great discoveries, but we do not always know how to link these data up with definite phenomena

of nature. The method of comparing the facts of history and changes of nature only began to be developed in the twentieth century.

Le Roy Ladurie, the historian of climate, has noted that the tendency to reduce booms and slumps of the economy in the various countries of Europe to periods of increased or lowered precipitation, cooling or warming, was based on an ignoring of economic and social crises, whose role was not doubted. He thus considered that the increase in imports of Baltic (i.e. Russian. — *L.G.*) grain into the Mediterranean, and reduction of the number of sheep in Spain in the sixteenth and especially the seventeenth centuries, are more easily correlated with the destruction inflicted on European countries by the Reformation and the Counter-Reformation than with insignificant changes in annual temperatures.¹⁸ He is right! Suffice it to note that there was a fall in population in that century not only in Germany, on whose territory the devastating Thirty Years' War (1618-1648) was fought, but also in Spain, a country that did not suffer ravages (in 1600, 8 000 000, and in 1700, 7 300 000). But that was due to a large part of the young men having been mobilized in America or the Netherlands, as a consequence of which there were not enough working hands in the country to maintain the economy and families.

What would we think of a historian who undertook to explain all the economic progress of Europe since 1850 by the retreat of glaciers established beyond doubt in the Alps,

Ladurie wrote;¹⁹ it is impossible not to agree with him. It is consequently necessary, in his opinion, simply to amass facts dated as accurately and unambiguously as possible, so as not to encourage contradictory interpretations.

There is no exact method of determining absolute datings in geography. A mistake of a thousand years is considered quite acceptable in it. It is easy to establish, for example, that deposits of silt have covered strata of loams, and consequently to note the existence of flooding, but it is impossible to say when it happened — 500 or 5 000 years ago. Pollen analysis indicates the existence, for example, of xerophilous (drought-tolerant) plants in a place where moisture-loving ones now grow, but there is no guarantee that the swamping of a valley occurred because of a shifting of the channel of a near-by river, and not through a change of climate. Remains of groves have been discovered in the steppes of Mongolia and Kazakhstan, but it is impossible to say from them whether they died

out from desiccation or from being chopped down by people; and even if the latter were demonstrated, the time of savage treatment of the landscape would still remain unknown.

Perhaps archaeology can help? Memorials of material culture distinctly mark periods of the flourishing and decline of peoples, and are amenable to quite accurate dating. The things found in the ground, or old burials, do not tend to mislead researchers or inspire them to distort the facts. But things are mute, which gives the archaeologists plenty of scope for imagination. And our contemporaries are also prone to romance and let their imagination run away with them; and although their way of thinking is very different from the mediaeval one, there is no certainty that they are any closer to reality. In the twentieth century we sometimes meet blind faith in the power of archaeological excavations, based on the truly successful finds in Egypt, Babylonia, India, and even in the Altai Mts., thanks to which we have been able to discover and investigate forgotten countries of ancient history. But that is the exception; for the most part the archaeologist has to be satisfied with shards got from the dust of scorching steppes, fragments of bones in rifled graves, and remains of walls, the height in one imprint of a brick. And one must remember, moreover, that the find is an insignificant part of the lost. It is never known what precisely is lost, but it is a mistake to consider the lost to be non-existent, and not to make allowances for it, a mistake that leads to obviously incorrect conclusions. In short, archaeology without history can lead the researcher into error. Let us try otherwise.

Are There Ethnoi?

There are no signs for defining an ethnos. According to my suggested definition, the form of existence of the species *Homo sapiens* is a collective of individuals opposing themselves to all other collectives. It is more or less stable, although it arises and disappears in historical time, which constitutes the problem of ethnogenesis. All these collectives differ more or less from one another, sometimes in language, sometimes in customs, sometimes in system of ideology, sometimes in origin, but always in historical fate or destiny. An ethnos is consequently, on the one hand, a product of history, and on the other is linked, through productive activity or the economy, with the biocoenosis of the landscape and country in which it was formed. Consequently an ethnic national group can change this relation, but with that it is altered beyond recognition,

and continuity is only traceable by the scientific method, with the strictest criticism of sources, because words are deceptive.

Before I go any further, we must agree on the concept 'ethnos', which I have not yet defined. We do not have a single real attribute for defining an ethnos as such, although there has never been, and is not, a human being who is unethnic. All the attributes listed define an ethnos 'sometimes', but their aggregate defines nothing at all. Let us check this thesis by the negative method.

In the theory of historical materialism the basis of society is recognized as the mode of production, which develops through socioeconomic formations. That is why self-development plays the decisive role in it; the influence of exogenous factors, including natural ones, cannot be basic in the genesis of social progress. The concept 'society' signifies an aggregate of people united by the concrete historical conditions of material life common to them. The main force in this system of conditions is the mode of production of material goods. People are united in the course of production, and the result of this uniting is social relations, which are formed in one of the five known formations (primitive communal, slaveowning, feudal, capitalist, and communist).

It is impossible 'to be united in an ethnos', since membership of one ethnos or another is directly perceived by the subject himself, and the surrounding ones take it as a fact not subject to doubt. Feeling or sensation consequently underlies the ethnic diagnostic. A person belongs to his ethnos from infancy. It is sometimes possible to incorporate strangers, but if that happens on a broad scale it disintegrates the ethnos. An ethnos can be broken up, but it is preserved in a diasporic state, forming numerous relict forms. The historical conditions are altered more than once during the life of an ethnos; conversely, divergence of ethnoi is often observed during the predominance of one mode of production. Starting from Marx's idea of the historical process as an interaction of the history of nature and the history of men,²⁰ we can propose a first, most general division into social stimuli arising in the technosphere, and natural stimuli constantly operating from the geographical environment. Everyone is not only a member of some society or other that is at a certain level of development, but is also a physical body subject to gravitation, and the final link in some biocoenosis, an organism capable of adaptation and existing at an age determined by the effect of hormones. The same can be said about the long-living collectives that socially form class states or tribal unions of various character (social organisms), and in nature form ethnoi (tribes, nationalities, nations). Their non-coincidence is obvious.

An ethnos is not a society. But there is another point of view, in accordance with which

an ethnos ... is a socio-historical category, whose genesis and development are determined, moreover, not by the biological laws of nature but by the specific laws of the development of society.²¹

How is that to be understood? According to the theory of historical materialism, the spontaneous development of the productive forces causes changes in the relations of production which generates a dialectical process of class formation that are transformed by processes of class abolition. This is a global phenomenon, a peculiar social form of the development of matter. But what does that have to do with ethnogenesis? Surely the appearance of such well-known ethnoi as the French or English did not coincide chronologically or territorially with the moulding of the feudal formation. Or did these ethnoi disappear with its collapse and the transition to capitalism? But in that same France the 'socio-historical category', the Kingdom of France, already embraced, in the fourteenth century, Celtic Bretons, Basques, Provençals, and Burgundians in addition to the French; so surely they were ethnoi? Doesn't this fact, one of very many, indicate that the pedigree definition is one-sided? And so that is grounds for scientific dispute.

Dialectical materialism distinguishes various forms of the motion of matter. The mechanical, physical, chemical, and biological are natural forms, while the social stands alone; by virtue of its specific nature it is characteristic only of mankind in all its manifestations. Every person and collective of people with technique and domesticated things (tame animals and cultivated plants) is subject to the effect of both social and natural forms of the motion of matter, which are ceaselessly correlated in time (history) and space (geography). When we generalize the material in a single complex (historical geography), amenable to observation and study, we have to examine it in two aspects — the social and the natural. In the first we see social organizations (tribal unions, states, theocracies, political parties, philosophical schools, etc.), in the second, ethnoi, i.e. collectives of people that arise and break up in a relatively short time but in each case have an original structure, a unique stereotype of behaviour, and its own rhythm of development, existing within the limit of homeostasis.

It is accepted, of course, to call classes, for example, sometimes juridically registered in estates or castes, socio-historical categories. In pre-class society tribal or gentile unions, for example

the Celts' clans, were their analogue. In its broad sense 'social category' can be extended to stable institutions, the state, for example, or church organization, the *polis* (in Hellas), or the fief. But everyone who knows history is aware that such categories only coincide with the boundaries of ethnoi in very rare cases, i.e. there is no direct link here. And, what is more, the economy, which belongs completely to the social form of the motion of matter, demolishes national boundaries. With the existence of a common European market, similar technique, similarity of education in the various countries, and widespread study of related languages, it might seem that ethnic differences would be wiped out in twentieth-century Europe. But are they in fact? The Irish broke away from Great Britain and spared no efforts to study their ancient, almost forgotten language. Scotland and Catalonia lay claims to autonomy although they had hardly considered themselves oppressed for the past 300 years. In Belgium Flemings and Walloons, who lived in harmony until recently, have suddenly begun a violent struggle that has come to street fights between students of the two ethnoi. And since only chance coincidence of social and ethnic peaks and slumps were also observed in antiquity, it is obvious that we are observing an interference of two lines of development or, in the language of mathematics, of two independent variables. This can only be ignored with a very strong desire to do so.

Language. Let us try to discover the nature of the perceptible manifestation of the existence of ethnoi, the phenomenon of the counterposing of itself to all others, i.e. the 'we' and the 'not us'. What gives rise to this opposition and feeds it? Not unity of language, because there are many bilingual and trilingual ethnoi, and on the contrary different ethnoi that speak one language. The French, for instance, speak four languages—French, Celtic, Basque, and Provençal, which does not prevent their present ethnic unity in spite of the history of the unification, or rather the Parisian kings' conquest of France from the Rhine to the Pyrenees, having been quite bloody. On the other hand, the Mexicans, Peruvians, and Argentines speak Spanish, but are not Spaniards. For some reason torrents of blood were spilled at the beginning of the nineteenth century only in order for war-torn Latin America to fall into the hands of trading companies of Great Britain and the USA. The Englishmen of Northumberland speak a language close to Norwegian because they are the descendants of Vikings who settled in England; and until recently the Irish knew only English but did not become English. Several different peoples speak Arabic; for many

Uzbeks their mother tongue is Tajik, and so on. In addition there are group languages, like French in England in the twelfth and thirteenth centuries, Greek in Parthia in the second and first centuries B.C., Arabic in Persia from the seventh to eleventh centuries A.D., and so on. Since the integrity of the ethnic national group was not disrupted, one must conclude that it is not a matter of language.

Furthermore, linguistic diversity often finds practical application, the practice bringing people speaking different languages closer together. During the U.S.-Japanese war in the Pacific, for example, the Japanese succeeded so well in decoding American radio transmissions that the Americans lost the possibility of transmitting secret information by radio. But they found a clever, unexpected way out, by teaching the Morse code to called-up Indians. An Apache transmitted to a Navajo in Athabaskan, an Assiniboin to a Sioux in Dakota, and the receiver translated the text into English. The Japanese broke the code but were helpless in face of the texts. Military service often brings people together; the Indians who returned home remained friends with their paleface war comrades. It did not, however, assimilate the Indians; the command, moreover, valued precisely their ethnic features, including bilingualism. So, although language may serve as an indicator of ethnic community in separate cases, it is not the cause of it.

The Weps, Udmurts, Karelians, and Chuvash, let us note, still speak their own languages at home, but study Russian in school, and on quitting their villages are practically indistinguishable from Russians. Their knowledge of their native language does not in the least prevent them from working on a common footing.

Finally, the Ottoman Turks! In the thirteenth century the Turkmenian chieftain Orthogrul, escaping from the Mongols, led around 500 horsemen and their families into Asia Minor. The sultan of Iconium settled the arrivals in Brussa, on the border with Nicaea, to wage a border war with the 'infidel' Greeks. Under the first sultans volunteer *ghazi* gathered in Brussa from all over the Near East, attracted by the allure of booty and land for settlement; they constituted cavalry, *spahis*. The conquest of Bulgaria and Macedonia in the fourteenth century enabled the Turkish sultans to organize infantry from Christian boys, who were torn from their families, converted to Islam, trained for warfare, and given the status of guards—the 'new troops' (janissaries). In the fifteenth century a navy was created, manned by all the adventurers of the coasts of the Mediterranean. In the sixteenth century light cavalry (*akinji*) were added, formed from emigrants from conquered Diarbekr, Iraq, and Kurdistan. French renegades became diplomats,

and Greeks, Armenians, and Jews financiers and economists. These people bought wives in the slave markets (Poles, Ukrainians, Germans, Italians, Georgians, Greeks, Berbers, Negroes, etc.). These women were the mothers and grandmothers of the Turkish troops. During the seventeenth and eighteenth centuries, the Turks were an *ethnos*, but the young soldier received orders in Turkish, talked with his mother in Polish, and his grandmother in Italian, traded in the bazaar in Greek, read verses in Persian, and prayed in Arabic. But he was an 'Ottoman' because he behaved as an Ottoman did, a brave, pious warrior of Islam.

The numerous European renegades broke down this unity in the nineteenth century, and formed the Young Turks in Paris. In the twentieth century the Ottoman Empire fell, and the *ethnos* broke up—people passed into other *ethnoi*. The descendants of the Seljuks raised a new Turkey from the depths of Asia Minor, and the remnants of the Ottomans lived out their remaining days in the alleys of Istanbul. So, a religious community, not a linguistic one, united the Ottoman *ethnos* for 600 years.

Ideology and culture are sometimes also attributes, but not necessary ones. Only an Orthodox Christian could be a Byzantine, for example, and all Orthodox were considered subjects of the Constantinople emperor, and perceived as 'ours'. But that was disrupted as soon as the baptized Bulgars started war with the Greeks, while Rus, having adopted Orthodoxy, did not dream of submitting to Czargrad. The principle of like-mindedness was also proclaimed by the Caliphs, the successors of Muhammed, but it did not withstand the rivalry of living reality—*ethnoi* again arose within the unity of Islam. On the other hand, preaching sometimes unites a group of people, which becomes an *ethnos*—the Sikhs in north-west India, for example, and the Ottoman Turks (see above). But in the Ottoman Empire there were Sunni Muslims, subjects of the Sultan, Arabs, and Crimean Tatars, who did not, however, consider themselves Turks. Even linguistic closeness to the Ottomans played no role for the Tatars. So faith, too, is not a common attribute of ethnicity.

A clear example of the confessional self-awareness of an *ethnos* is the Sikhs, a sect of Indian origin. The caste system established in India was considered obligatory for all Hindus. It was a special structure of the *ethnos*. Being a Hindu meant being a member of a definite caste. It was not a political unity, but the stereotype of behaviour was firmly maintained, even quite brutally. Each caste had the right to a certain type of occupation, and those on whom military service was settled were few. That made it possible for Afghan

Muslims to master India and jeer at the defenceless population, the inhabitants of Punjab suffering most. In the sixteenth century a teaching appeared there that at first proclaimed non-resistance to evil, but later set an aim of war against Muslims. The caste system was abolished, which distinguished the Sikhs (the name of devotees of the new faith) from Hindus. They isolated themselves from the Indian community by endogamy, developed their own stereotype of behaviour, and established a structure of their own community. According to the principle I have adopted, the Sikhs should be regarded as a rising ethnos counterposed to Hindus. And so they perceive themselves. The religious conception has become a symbol for them, and for us an indicator of ethnic divergence.

The teaching of the Sikhs cannot be considered just a doctrine, because if anyone in Moscow were to embrace this religion fully he would not become a Sikh, and they would not consider him one of them. The Sikhs became an ethnos on the basis of religion, the Mongols on the basis of kinship, the Swiss through a successful war against Austrian feudalists, who welded together a country where four languages were spoken. Ethnoi are formed by various means, and our task is to find the common pattern in that.

Most major peoples have several ethnographic types that constitute a harmonious system but that differ very much from one another both in time and in social structure. Compare seventeenth-century Moscow with its boyar hats and beards, when women spun behind mica windows, or eighteenth-century Moscow when magnates in wigs and camisoles took their wives to balls, and nineteenth-century Moscow when bearded nihilist students educated young ladies from all estates; and add the decadents of the early twentieth century. Comparing them all with our age, knowing that they are one and the same ethnos, we see that ethnography could lead the investigator without a knowledge of history into error. No less indicative is a spatial cross-section for one year, say 1869. White Sea Russians, Petersburg workers, Transvolga Old Believers, Siberian gold prospectors, peasants of the forest provinces and peasants of the steppes, the Don and Ural Cossacks were outwardly quite unlike one another, but that did not disrupt the folk unity, while the closeness of the everyday life of the Greben Cossacks and the Chechens did not unite them.

Strange as it may be, the point of view put forward here has met active resistance precisely where it should attract attention. Kozlov and Pokshishevsky, whose paper I cited above, have opposed their view to mine both on the relationship of ethnography and geography and on the history of the question, i.e. on historiography.

While not desiring to polemize, I nevertheless cannot ignore another conception that lays claims (without grounds) to canonicity. That would be academically incorrect.

These scholars represent the formation of ethnography as a science as follows. Up to the middle of the nineteenth century geography and ethnography developed together, but ethnography later split into socio-historical and geographical trends. Lewis Morgan, J.J. Bachofen, E.B. Tylor, Sir James Frazer, and L.Ya. Sternberg belonged to the first trend, and Friedrich Ratzel, L.D. Sinitsky, and A.A. Coubert and the French school of 'human geography' to the second. There is a substantial defect in the classification proposed, which reduces it essentially to nought. The members of the 'trends' were interested in different subjects and devoted their attention to different themes. And that being the case, it is unjustified to counterpose them. For when Ratzel tried to substantiate the 'geographical character of ethnographic division into districts he by no means disputed the conception of animism, sympathetic magic, or ritual murder of a priest, i.e. the subjects to which Frazer devoted his *Golden Bough*. But it was to the existence of versatile scholars' diverse interests that authors ascribed the separation of ethnography from geography, and its rebirth as a social science. There was a certain confusion in that fraught with sorry consequences. Any science develops by broadening its range of investigation, and not by a simple change of thematic. Consequently, when historical aspects were added to the achievements of geographical ethnography, that was progress of the science, but when some subjects were replaced by others that was marking time, which is always extremely damaging.

Equally, one must not replace ethnography by a theory about 'economic-cultural types' characteristic of peoples that are approximately at an identical level of socio-economic development and living in similar natural geographical conditions (for example, the type of 'Arctic marine-mammal hunters', 'herdsmen of the arid steppes', and so on).²² This trend is fruitful for palaeo-economic geography, but does not and cannot have any relation to ethnography—there are, for example, reindeer Chukchi, i.e. pastoralists, and Chukchi hunters of marine mammals. According to the classification proposed they should be put into different groups, although they are one ethnos. And surely the Russian peasants of Moscow, the White Sea Russians (Pomors), and Siberian sable hunters are one ethnos. And there is indeed no end of examples.

It is also incorrect to equate ethnos with biological taxonomic units, i.e. races or populations. Races differ from one another in

physical attributes that have no essential significance for man's life activity.²³ A population is an aggregate of individuals peopling a definite territory, in which they freely cross-breed, and are separated from neighbouring populations by isolation of some sort. An ethnos, in my understanding, is a collective of individuals that has a unique inner structure and an original stereotype of behaviour, both components being dynamic. Consequently an ethnos is an elementary phenomenon that is not reducible to either sociological, biological, or geographical phenomena.

Reduction of ethnogenesis to 'linguistic-cultural processes' distorts reality, removing the complexity of ethnic history, which Bromley pointed out when he proposed introducing the supplementary terms 'ethnikos' and 'eso' (ethno-social organization) in order to clarify the problem.²⁴ I believe one can be not satisfied with his solution, but it is incorrect to ignore it altogether.

Descent from a single ancestor. In ancient times such descent was considered obligatory for an ethnos. Often an animal, which was not always a totem, figured as the ancestor. For the Turks and the Romans it was a she-wolf wet-nurse; for the Uighurs a wolf that fertilized a queen; for the Tibetans an ape and a female rakshas (forest demon). But usually it was a man whose image was distorted beyond recognition by legend: Abraham, the ancestor of the Jews, his son Ismail, the ancestor of the Arabs, Cadmus, the founder of Thebes and initiator of the Boeotians, and so on.

Strange as it may seem, these archaic views have not died out; only in our time we try to put some ancient tribe in the place of a person, as the ancestors of an existing ethnos. But that, too, is incorrect. As there is no person who has only a father or a mother, so there is no ethnos that had not been produced by various ancestors. And one should not confuse ethnoi with races, as is often done, but without justification. The grounds for temptation is the preconceived idea that 'the processes of racial origin (like the processes of ethnogenesis.—L.G.) probably developed in certain areas of the world and were governed by the specific nature of the natural environment,'²⁵ i.e. by the climate, flora, and fauna of geographical zones.

There is an impermissible substitution of an object here, i.e. the initial race is arbitrarily equated with ethnos. Let us examine this.

During the Upper Palaeolithic, when sub-arctic conditions prevailed in Europe, with a very arid climate, the valley of the Rhone was settled by the Grimaldi Negroid race, while the tropical forests of Africa were inhabited by the Khoisan race, which combined

Mongoloid and Negroid features. This race was ancient; its origin is unclear, but there are no grounds for considering it a hybrid. The Negroid Bantu pushed the Khoisan to the extreme south of Africa in a quite historical period, beginning in the first century A.D. up to the nineteenth century, when the Bechauna drove the Bushmen into the Kalahari Desert. Negroid features did not arise at all in equatorial America, although the natural conditions were similar to the African.

The arid zone of Eurasia was peopled by Europeoids of the Cromagnon type and by Mongoloids, but that did not lead to a wiping out of racial features. In Tibet the Mongoloid Bod (Bodyul) were neighbours of the Europeoid Dardi and Pamirtsy, and in the Himalayas the Gurkhas of the Patani. But the similarity of natural environment did not influence the racial character. In short, one must recognize that the functional connection of anthropological differences among various populations and the geographical conditions of the areas peopled by them is not clear. Furthermore, there is no certainty that there is one in general in nature, the more so that the idea runs counter to the achievements of modern palaeoanthropology, which bases racial classification not on zones of latitude but by meridional regions (Atlantic, to which Europeoids and African Negroids are assigned; and Pacific, to which the Mongoloids of East Asia and America belong). This point of view rules out the effect of natural conditions on the origin of races because both groups took shape in various climatic zones.

Ethnoi are always linked, on the contrary, with natural conditions, through active economic activity, which is manifested in two directions, viz., adaptation to the terrain, and of the latter to the ethnos. In both cases, however, we come up against an ethnos as a really existing phenomenon, although the reason for its origin is not clear.

It is also not necessary to reduce the whole diversity of my theme to some one thing. It is better simply to establish the role of certain factors. The terrain, for example, determines an ethnic collective's possibilities during its rise, but a newly born ethnos alters the terrain in accordance with its requirements. Such mutual adaptation is only possible when a rising ethnos is full of strength and is seeking to apply it. Later, however, it becomes used to the established situation, which becomes near and dear to its descendants. Denial of that leads inevitably to a conclusion that peoples have no homeland, understood here as a combination of topographical elements dear to all hearts. Hardly anyone will agree with that.

That alone indicates that ethnogenesis is not a social process, because spontaneous development of the sociosphere only interacts with natural phenomena, but is not a product of them. But it is precisely because ethnogenesis is a process, and a directly observed ethnos is a phase of ethnogenesis, and consequently an unstable system, that any comparison of ethnoi with anthropological races is ruled out, and so with any racial theories. In fact, the principle of anthropological classification is similarity, and the people who comprise an ethnos are diverse.

Two or more components always operate during ethnogenesis. The crossing of various ethnoi sometimes yields a new stable form, but sometimes leads to degeneration. A mixture of Slavs, Ugrians, Alans, and Turks merged into the Great Russian nationality, while the Mongolo-Chinese and Manchurian-Chinese mixtures that often took shape along the line of the Chinese Great Wall over the last two thousand years proved unstable and disappeared and did not form independent ethnic units.

Central Asia was inhabited by Sogdians in the seventh century A.D., and the term 'Tajik' already meant 'Arab' in the eighth century, i.e. warriors of the Caliph. Nasr ibn Sayyar, when suppressing a rising of Sogdians in A.D. 733, was forced to recruit Khorassan Persians, who had already adopted Islam, to his depleted forces. He picked many of them, so that Persian began to predominate in his Arab army. After his victory, when the Sogdian men were slaughtered, and the children were sold into slavery, but the beautiful women and flourishing gardens were shared out among the victors, a Persian-speaking population developed in Sogdiana and Bukhara, that resembled the Khorassians. But in 1510 the fates of Iran and Central Asia diverged. The Turk Ismail Safevi, a zealous Shi'ite, conquered Iran and converted the Persians to Shi'ism. But Central Asia fell to Sunni Uzbeks, and the Persian-speaking population retained the old name 'Tajik' which, before the fall of the Bukharan dynasty of the Mangyts in 1918, had no significance attached to it. When the Uzbek and Tajik Republics were formed in the old Turkestan Territory, the descendants of the Khorassan Persians, the eighth-century conquerors, who lived in Bukhara and Samarkand, were counted as Uzbeks in the census, and the descendants of the Turks, the conquerors of the eleventh and sixteenth centuries, living in Dushanbe and Shakhrisabz, as Tajiks. They knew both languages from childhood, were Muslims, and were indifferent to how they were recorded. Over the past 40 years the position has altered; Tajiks and Uzbeks have been formed as socialist nations, but how were they to be regarded before then, when religious

affiliation determined ethnic affiliation (Muslims and Kafirs) and there were no clans among Tajiks? For both ethnic substrata—Turks and Iranians—were ‘imported’ ethnoi in Central Asia a thousand years ago, quite a long enough period for adaptation. There is obviously a certain pattern here that needs to be brought out and described. But clearly community of origin cannot be the indicator for determination of an ethnos. It is a myth inherited by our consciousness from the primitive science of primitive society.

Ethnos as an illusion. But perhaps ‘ethnos’ is simply a social category that takes shape with the formation of a society.²⁶ Then ‘ethnos’ is an illusory value and ethnography a meaningless past-time, since it is simpler to study social conditions directly. That point of view is mistaken, however, which becomes obvious when speculation is replaced by observations of natural processes accessible to a thoughtful person. Let me clarify this from real examples. Celtic Bretons and Iberian Gascons live in France. In the forests of the Vendée and on the slopes of the Pyrenees they dress in their own costumes, speak their own language, and distinguish themselves distinctly in their homeland from the French. But can one say of Marshal Murat or Lannes that they were Basques and not French? Or about D’Artagnan, both as a historical personage and the hero of Dumas’ novel? Can we not consider the Breton nobleman Chateaubriand and Gilles de Retz, the companion of Joan of Arc, Frenchmen? Wasn’t the Irishman Oscar Wilde not an English writer? The famous orientalist Chokan Valikhanov said of himself that he considered himself equally Russian and Kazakh. There is any number of such examples, but they all show that the ethnic affiliation discoverable in peoples’ consciousness is not a product of consciousness itself. It evidently reflects some aspect or other of the person, much deeper, and external as regards consciousness, by which I understand a form of higher nervous activity. But in other cases, ethnoi for some reason manifest immense resistance to the effects of their surroundings and do not assimilate.

The Gipsies have now been separated from their society and India for a thousand years, have lost their link with their native land, and nevertheless have not merged with the Spaniards, or the French, or the Czechs, or the Mongols. They did not adopt the feudal institutions of the societies of Europe, remaining an outsider group in all the countries where they lived. The Iroquois still live as a tiny ethnic group (totalling 20 000 persons), surrounded by hypertrophied capitalism, but do not adopt the ‘American way of life’. In the Mongolian People’s Republic there are Turkic ethnoi (Soyots

or Uranhaietsy, Kazakhs, etc.), but in spite of a similarity of the 'material and spiritual development of society', they have not merged with the Mongols, but constitute independent ethnoid. And conversely, French settled in Canada in the eighteenth century and still retain their ethnic face. Jews lived in Salonika as an endogamous group more than 400 years after their expulsion from Spain, but according to the data of 1918 they were more like Arabs than their neighbours the Greeks. Exactly the same way Germans from Hungary outwardly resembled their confrères in Germany, and Gipsies Hindus. Selection alters the correlation of attributes slowly, and mutations, we know, are rare. Any nationality living in a terrain customary for it is therefore almost in a state of equilibrium.

But one must not think that a change of conditions of existence never influences an ethnoid. Sometimes it exerts such a strong impact that new attributes are formed, and new ethnic variants that are more or less stable. We must therefore examine how these processes come about and why they yield different results.

Between West and East. When we acquaint ourselves with the cultures of the Mediterranean, we find ourselves in an environment of accustomed concepts and values. Religion signifies belief in God, the state is a territory with a definite order and authority, countries have names, peoples an ethnic affiliation, and rivers and lakes are in definite places.

Only the customary titles 'West' and 'East' do not behave quite geographically. Morocco is considered 'East' and Hungary and Poland 'West'. But everyone manages to adapt to this convention, and there is no confusion of the concepts. Non-specialists' familiarity with the subject as a consequence of reading fiction, and the availability of living tradition, are very conducive to this.

But as soon as we cross the mountain passes that divide Central and Eastern Asia, we come into a world of another system of reckoning. Here we meet religions that deny the existence not only of a divinity but also of the world around us. Regimes and social structures prove to contradict the principle of the state and authority. We find ethnoid in nameless countries without a community of language and economy, and sometimes even of territory, while rivers and lakes will migrate like pastoralists. The tribes that we are accustomed to consider nomads prove to be settled, and the strength of armies will not depend on their numbers. Only the patterns of ethnogenesis remain unchanged.

Other material calls for another approach and consequently another scale of investigation. Otherwise it will remain incomprehen-

sible and my book will become unnecessary for the reader. That is to say, the reader accustomed to European terms. He knows what a 'king' is, and a 'count' or 'earl', a 'chancellor', and a 'bourgeois commune'. But in the East of Oecumene there were not equivalent terms. A 'khaghan' was not a king or an emperor, but a military chieftain elected for life who combined with it the performance of rituals of honouring ancestors. But can we imagine Richard the Lion-Hearted saying a funerary mass for Henry II, whom he drove to heart failure? And even that members of the Gascon and English nobility were present at this mass? Indeed, it is nonsense! But in the east of the Great Steppes, he would have been obliged to do so, otherwise he would have been killed.

Such appellations as 'Chinese' or 'Hindus' are not equivalent to 'French' or 'Germans' but to West Europeans as a whole, because they are systems of ethnoi but united on other principles of culture. Hindus are linked by a system of castes, and Chinese by hieroglyphic writing and an education connected with it. As soon as a native of Hindustan was converted to Muhammedanism, he ceased to be a Hindu since he became an outcast or renegade for his fellow-countrymen and fell into the category of untouchables. And a Chinese living among barbarians according to their customs, was treated, according to Confucius, as a barbarian. But a foreigner who observed Chinese etiquette was regarded as a Chinese.

In order to compare the ethnoi of East and West we have to find a proper correlation with an equal scale of division. For that purpose I shall study the properties of an ethnos as a natural phenomenon characteristic of all countries and ages.

To achieve this purpose one must be very attentive to ancient traditional information about the world, and not to reject it in advance because it does not correspond to our modern notions and ideas. We constantly forget that people who lived several thousand years ago had the same consciousness, capacities, and aspiration for the truth and knowledge as modern people. Treatises that have come down to us from the various peoples of various times testify to that.

The ordinary approach is not suitable for understanding the history and culture of Eastern Asia. When we study the history of Europe we can divide it up—into the history of France, Germany, England, etc., or ancient history, mediaeval, and modern. Then, studying the history, say, of Rome, we are interested in neighbouring peoples only insofar as Rome clashed with them. For Western countries such an approach is justified by the results obtained, but when we study Central Asia by this means we do not get satisfac-

tory results. The reason lies deep; it is that the Asian and European understanding of the term 'people' ('folk') is different. In Asia itself ethnic unity is perceived differently, and even if I take off the Levant, and India with Indo-China, as without direct relation to my theme, there remain all the same three different understandings, the Chinese, Iranian, and nomadic. The last-named, moreover, varies particularly strongly with the epoch.

In Europe an ethnonym is a stable concept; in Central Asia it is more or less fluid; in China it is absorbent, and in Iran exclusive. In other words, in order to be considered a Chinese in China, a person had to adopt the fundamentals of Chinese morality, education, and rules of behaviour. Origin was not taken into account, nor language, because the Chinese spoke different languages in antiquity. It is therefore clear that China inevitably expanded, swallowing and absorbing small peoples and tribes. In Iran, on the contrary, a Persian had to be born one, but above all, in addition, had to honour Ahura Mazda and hate Ahriman. Without that it was impossible to be an 'Aryan'. The mediaeval (Sassanid) Persians did not think it even possible to include anyone in their ranks since they called themselves 'well-born' or 'noble' (*nondoron*), and others did not belong to that number. As a result, the number of the people steadily fell. It is difficult to guess at the Parthian conception, but it seemingly differed from the Persian only in being rather broader.

With the Hunni it was necessary, in order to be considered one, to be a member of a clan, but a clan could only be joined through marriage or by the command of a shanyui, by which a person became a member of a clan. The heirs of the Hunni, the Tyrians, began to incorporate whole tribes. Mixed tribal alliances arose on the basis of acceptance, for example Kazakhs, Yakuts, etc. Among the Mongols, very close in general to the Turks and Hunni, the horde was given predominance, i.e. a group of people united by discipline and leadership. Neither origin nor language, nor religious belief was required for that, but only courage and readiness to submit. The names of the hordes were clearly not ethnonyms, but with the existence of hordes ethnonyms fell out of use in general since there was no need for them; the concept 'people' coincided with that of 'state'.

In that connection we have firmly to remember that the concept 'state' differs in all the cases mentioned above, and is not inter-translatable. The Chinese 'guo' is represented by a hieroglyph, viz., an enclosure and a man with a spear. That does not, by any means, correspond to the English 'state' or the French 'état', or even the Latin 'imperium' and 'respublica'. It is also remote in content from

the Iranian 'shahr' or the above-mentioned term 'horde'. The nuances of the difference often prove more significant than the elements of similarity, and that determines the behaviour of the figures of history. What seems monstrous to a European is natural for a Mongol, and vice versa.

We cannot help regretting, of course, the widespread idea that all state forms, social institutions, ethnic norms, and even manners of exposition not like the European, are simply backward, imperfect, and defective. Banal Eurocentrism is sufficient for Philistine perception, but not suitable for scientific comprehension of the diversity of the observed phenomena. For from the standpoint of a Chinese or an Arab West Europeans seem to be defective. And that is also incorrect, untrue and unpromising for history. We obviously have to find a system of reckoning by which all observations will be made with an equal degree of accuracy. Only such an approach will make it possible to compare dissimilar phenomena and so yield reliable conclusions.

In the West countries are distinguished by name, but in the East?

A country and people without a name. Between the eastern boundary of the Muslim world and the north-western outskirts of the Middle Kingdom which we call China, lies a country that has no definite name. That is all the more strange since its geographical frontiers are very exactly delineated, the physical and climatic conditions within it are original and unique, the population numerous, and long concerned with culture. This country was very well known to Chinese, Greek, and Arab geographers; it was visited by Russian and West European travellers; archaeological excavations have been carried out in it many times; and everyone called it descriptively somehow or other, but it did not have a name of its own. We therefore only know where it was located.

Two mountain ranges stretch eastward from the Pamirs—the Kunlun Shan, to the south of which lies Tibet, and the Tien Shan. Between these ranges lies a sandy desert, the Takla-Makan, intersected by the river Tarim. This river has neither source nor mouth. Its beginning is taken to be the 'Aral', i.e. the 'island' between the branches of three rivers, the Yarkand, the Aksu, and the Khotan. Its end is sometimes lost in the sands, sometimes gets to the lake Karaburunkul, and sometimes fills Lop Nor, a lake that constantly changes place.²⁷ In this strange country the rivers and lakes wander, and people huddle in the mountain foothills. Fresh brooks flow down from the mountains, but then and there disappear under

heaps of scree and come out on the surface at a considerable distance from the ridges. There are oases there; then the rivers again disappear, this time into the sands. In this very continental country there is a very deep depression, the bottom of which lies 154 metres below sea level, and in this depression there is an ancient cultural centre, the Turfan oasis. How were sciences and the arts studied there in a summer heat as high as 48°C and winter frosts as low as -37°C, in the unbelievable dryness of the autumn air and the strong spring winds?! Yet they were, and with no little success.

The ancient population of this country had no name for itself. It is accepted now to call these people Tocharians, but that is not an ethnonym, but a Tibetan sobriquet—*tha gar*, which means 'white head' (blond). The inhabitants of the various oases spoke various languages of the Indo-European group, including even a West Aryan one unlike those known in Europe. In the south-west of the country, in the foothills of the Kunlun Shan, roamed Tibetan tribes that were in close contact with the inhabitants of Khotan and Yarkand, but did not mix with them. In the early centuries A.D. Sakas penetrated this country from the west, who settled south of Kashgar as far as Khotan, and Chinese emigrants escaping the terrors of civil wars. The Chinese built themselves a colony Gaochang, in the Turfan oasis, which lasted until the ninth century A.D. and disappeared without trace.

As you will see, it is impossible to choose a name for this country by ethnonym, but this was a cultured population which organized an economy that must be considered the best in the ancient world.

The nature of the oases of Central Asia was brought into harmony with the needs of man. The Turfan people assimilated the Iranian system of underground water supply, *keriz*, thanks to which the irrigated area fed a big population. Two harvests a year were gathered. Turfan grapes can rightly be considered the best in the world; there were melons, watermelons, and apricots from spring to late autumn; the sowings of long-fibre cotton were protected from the winds by Lombardy poplars and mulberry trees. And around was a stony desert of fragments of disintegrated rocks, shingle, and boulders, through which neither tree nor shrub penetrated. This was a reliable defence of the oasis against big armies. It was very difficult to send foot soldiers across the desert, because they had to carry not only food with them, but also water, which greatly increased the baggage train. And raids of the nomads' light cavalry were not terrible for the fortress walls.

A second large centre of this country, Karashahr, lay in the hills around the freshwater lake Baghrash-kul. This town 'has rich lands

... abounds in fish... It is well fortified by nature and is easily defended.⁷²⁸ From Baghrash-kul flows the Konche-darya, which feeds Lop Nor. The full-flowing Tarim river, bordered by groves of poplars, tamarisks, sea buckthorn, and tall reeds that give cover to deer and wild boars, can be reached along its banks without suffering thirst.

The old ideology of the settled dwellers of this country was Buddhism in the Hinayana form ('Lesser Way' or 'Lesser Vehicle', i.e. the most orthodox teaching of the Buddha without admixtures), which it is impossible to call a religion. The Hinayanists deny god, putting the moral law of karma (causal succession) in his place. A Buddha is a man who had achieved perfection and is an example for anybody wishing to liberate himself from sufferings and rebirths through the achievement of Nirvana, the state of absolute peace. Only a purposeful person or *arhat* (holy man) could achieve it, without depending either on divine mercy or on outside help.

It goes without saying that achieving the 'path of perfection' is the affair of the few. But what are the rest to do? They simply concerned themselves with everyday affairs, respected arhats, listened to sermons in their spare time, and hoped that they themselves might, in future rebirths, become holy ascetics. But we have already seen, by way of other examples, how insignificantly dogmas influence the ethnic stereotype of behaviour. The arhats, merchants, soldiers, and farmers of Turfan, Karashahr, and Kucha constituted a single system for which Hinayana Buddhism was only a colouring.

The colouring of an object plays its role, however, sometimes an essential one. The Hinayana community lasted until the fifteenth century, but the Mahayana, also a Buddhist doctrine, but a vague, complicated one of different character, which spread in Yarkand and Khotan, obviously not accidentally, had already given way to Islam in the eleventh century.

The Uighurs who arrived in Turfan professed Manichaeism, but seemingly as formally as the Turfanites professed Buddhism. Manichaeism had already disappeared as an independent confession before the twelfth century, but Manichaean ideas passed into certain Buddhist philosophical currents, and into Nestorianism, which made a victorious march throughout Central Asia in the eleventh century. And in those centuries the inhabitants of Turfan, Karashahr, and Kucha began to call themselves Uighurs.

The Nestorians in Uighuria got along with the Buddhists in spite of their inherent intolerance. Christianity was seemingly welcome to people of a religious mentality remote from the atheistic abstractions of Hinayana. The merchants also became Christians, because

the Buddhist doctrine forbade 'those who have taken the path' to touch gold, silver, and women. Religious people who were actively involved in economic life were therefore compelled to seek a faith that did not prevent them from living and working. One can consequently conclude that convenient ecological niches were found for both ideological systems.

The wealth of this country was mainly based on a favourable geographical position. Two caravan routes passed across it: one north of the Tien Shan and the other south of them. Chinese silk flowed by these routes to Provence, and luxury articles of France and Byzantium to China. The caravaners rested in the oases from the arduous desert crossings, and fattened their camels and horses. In that connection the local women widely practiced the first oldest profession, while the husbands permitted their wives these earnings, part of which went into their pockets. The Uighurs were so accustomed to this that even when, thanks to an alliance with Mongols, Uighuria became fabulously rich, its inhabitants begged the Mongol khan not to forbid their wives to entertain travellers.²⁹

This custom, or more correctly element of the ethnic stereotype of behaviour, proved more stable than language, religion, political system, and own name. The stereotype of behaviour developed as an adaptive attribute, i.e. as a mode of adaptation of the ethnos to its geographical environment. The names changed here more often than the ethnol bearing them, the change of ethnonyms being explained by the political climate.

The rich, numerous population of these fertile oases could, without difficulty, feed the warlike nomads, the more so that the Uighurs, and later the Mongols, took on themselves the defence of their subjects against foreign enemies. For three hundred years the Uighurs mixed with the aborigines, but forced them to change from the Tocharian language to Turkish. That did not need much effort, incidentally, because in the eleventh century all peoples from the azure waters of the Sea of Marmara and the forested slopes of the Carpathians to the jungles of Bengal and the Great Wall of China spoke dialects of the Turkish language. Such a broad distribution of Turkish-speaking made this language convenient for trading operations, and the inhabitants of the oases of both halves of Central Asia were identically fond of trading. Change of a native but little used language for a generally accepted one therefore happened without difficulty, not only in the north-east of the Tarim basin but also in the south-west, where the role of the Uighurs had been taken on by the Turkish Yagma and Karluk tribes. But the difference between them and the Uighurs was immense. The Uighurs

did not affect the way of life, religion, or culture of their subjects, but the Karluks, who had adopted Islam in A.D. 960, converted the Kashgar, Yarkand, and Khotan oases into likenesses of Samarkand and Bukhara.

A geographically monolithic region thus proved to be divided into two ethno-cultural provinces by no means friendly to one another. But the forces were balanced, and the distances between the oases were vast and almost impassable. The position therefore became stabilized for a long time.

This situation explains why the country remained without a single name. In antiquity the Chinese called it Xiyu, i.e. the 'Western Territory', and considered its end to be the 'Bow Mountains', the Pamirs and Altai. The Hellenes called this land 'Serika' and the precious commodity obtained from it *serikos* (silk). I shall not bother to explain the etymology of this word.

In modern times conventional names have also been used—Kashgaria, Eastern Turkestan, or Sinkiang, i.e. literally the 'new frontier' established by the Manchurians in the eighteenth century. None of these names are suitable for our times. What was the 'West' for the ancient Chinese became the middle in the twelfth and thirteenth centuries. To call a country inhabited by Indo-Europeans who have learned to understand Turkish speech 'Turkestan' is stupid. Kashgar never became the capital, and the 'New Frontier' did not seem to be even the horizon. Best of all we are left with the geographical conventional name, the Tarim basin. The river is a reliable reference point, in any case neutral and lasting. In addition the term 'Sinkiang' includes Jungaria (also a conventional and later name), located north of the Tien Shan, which had a quite different historical fate.

The eastern boundary of Uighuria is difficult to define. Since the disappearance of the river it has shifted significantly and many of the changes have not been dated. It can be thought that the Hami oasis belonged to the Uighurs, and perhaps the cave town of Tunhuang, a treasure-house of Buddhist art. But the more eastern lands, the oases of the Nan Shan foothills, were taken from the Uighurs by the Tanguts. These were a people which, like the Uighurs, do not now exist, although there are people who call themselves such. But that, too, is a mirage. The people calling themselves Uighurs are Ferghana Turks who settled in the east in the fifteenth to eighteenth centuries. And those who are taken for Tanguts are nomadic Tibetans, a relict ethnos who were once the most savage enemies of the Tanguts.

So, a historical critique shows that the meaning of name and the sound of it do not always correspond in Asia. In order to avoid annoying and, alas, frequent mistakes, one must develop a system of reckoning that would be real for Europe and Asia and America, Oceania, Africa, and Australia. But in this system sense will be preferred to phonetics, i.e. it will be based on history rather than on linguistics.

'States' and 'processes'. The aggregate of adduced facts indicates that the system of reference taking socio-economic formations as its basis does not apply in principle to ethnogenesis. This system fixes 'states' of society determined by the mode of production, which in turn depends on the level of the productive forces, in other words on technosphere. This system of reference is very convenient for studying the history of material culture, state institutions, styles in art, philosophical schools, in short for everything created by people. It has become so customary over the past century that it has been mechanically transferred to the analysis of ethnogenesis.

The concept 'state' has its place in both nature and society. In nature there are four states: solid, liquid, gaseous, and plasma. The transition of a molecule of inanimate matter from one state to another occurs through a certain expenditure of energy (the latent heat of melting or the generation of steam), i.e. a small jump; and the process is reversible. In the live matter of the biosphere this transition is linked with death of the organism, and is irreversible. That can mean that there are only two states, viz., life and death, for an organism, but since death is annihilation of the organism as an entity, it is ridiculous to call this moment of transition a 'state'. As for an organism's life, it too is not a 'state' but a process—from birth through an acme form in which there is reproduction, to death. The analogy of the process of life in inanimate matter is the crystallization of minerals and their subsequent metamorphosis into amorphous masses.

When studying 'states' and 'processes' we always employ different methods: for 'states', classification, by any conventionally accepted principle convenient for surveying the phenomenon as a whole; for 'processes', particularly linked with evolution or the formation of species, systematics is needed, based on a hierarchical principle, i.e. the correlation of similar although not identical groups of different rank. Such is Linnaeus' systematics perfected by Darwin. The hierarchical character of the system of the organic world is governed by the course and character of evolutionary pro-

cesses inseparable from life and obligatory for it. But as soon as life dies a 'state' arises, more or less rapidly broken up by the action of the environment, although the latter is constituted by other dead 'states' also subject to irreversible deformation. For an organism, including the human organism, of course, there is only one mode of reaching a 'state', viz., to become a mummy, and for an ethnos to become an archaeological culture.

It is otherwise with the technosphere and the relations of production associated with it. In it there are 'states'. It is easy to make scrap of a tractor, and a tractor from scrap. Only expenditure of a certain (alas, not small) amount of energy is required. There are also 'states' in social life. They used to be called estates (*état*). In a metaphorical sense one can call class affiliation a 'state', but it must be remembered that it is the product of relations of production and of the productive forces, i.e. also of the technosphere. This state is extremely unstable. A warrior taken prisoner became a slave, but having run away could become a feudal lord. There is no place or need for the hierarchical principle in the fate of such a person. Simple recording is sufficient. Changes of social states are similar (though not identical), for instance, to changes of natural states — they are reversible and require, for passage from one state to another, an investment of additional energy. But what is an ethnos? Can one, by making an effort, change one's ethnic affiliation? Seemingly not! But that already indicates that an ethnos is not a 'state' but a 'process'.

A second argument against the conception of 'state' is the erosion of boundaries between ethnoi in zones of ethnic contacts. If the change of social state is, as a rule, a once-and-for-all act, for example, the ennobling of the gentry, demotion to the ranks, sale into slavery, emancipation from bondage, etc., the mixing of peoples in the valley of the Huangho or in Constantinople, or in North America, is always a painful, long, and extremely variable process, in the sense that the results of interbreeding often prove unexpected and are always uncontrollable, which is due mainly to the absence of a developed ethnological theory that would make it possible to act with due allowance for the consequences of one's actions, and not blindly.

NOTES

¹Biosphere, a term introduced by Vernadsky, signifies one of Earth's envelopes that includes, in addition to the aggregate of living organisms, all the fruits of their

past life activity, viz., soils, sedimentary rocks, and the free oxygen of the atmosphere. The established links of ethnogenesis with biochemical processes of the biosphere is not 'biologism' as some of my opponents suggest, but rather 'geographism', though such a label is hardly appropriate, for everything that is on the surface of Earth is part of the sphere of geography in one way or another, either physical, economic, or historical.

²V.I. Vernadsky. *Khimicheskoe stroenie biosfery Zemli i ee okruzeniya* (The Chemical Structure of Earth's Biosphere and Its Environment), Nauka, Moscow, 1965, p 273.

³V.I. Vernadsky. *Biosphere. Izbrannye sochineniya v 5 tomakh*, Vol. 5. Izdatel'stvo Akademii Nauk SSSR, Moscow-Leningrad, 1960, p 19.

⁴A.A. Malinovsky. *Puti teoreticheskoi biologii* (The Paths of Theoretical Biology), Znanie, Moscow, 1969, p 7.

⁵H. Selye. *From Dream to Discovery. On Being a Scientist*. McGraw-Hill Book Company, New York, London, Toronto, 1964, p 68.

⁶S.V. Kalesnik. *Osnovy obshchego zemlevedeniya* (Fundamentals of General Geography), 2nd ed. Uchpedgiz, Moscow, 1961, pp 412-416.

⁷I.N. Boltin. *Primechaniya na istoriyu drevniya i nyneshniya Rossii g. Leklerka, sochinennyye general-mayorom Ivanom Boltinym* (Notes on M. Leclerc's History of Old and Present Russia, compiled by Maj.-Gen. Ivan Boltin), Vol. II. St. Petersburg, 1788, p 20.

⁸L.S. Berg. *Khomogenez* (Homogenesis), Moscow, 1922, pp 180-181.

⁹S.V. Kalesnik. *Op. cit.*, p 455.

¹⁰See: G.V. Plekhanov. Some Remarks on History. *Selected Philosophical Works*, Vol. II. Progress Publishers, Moscow, 1976, p 227.

¹¹G.W.F. Hegel. *The Philosophy of History*. Translated by J. Sibree. Dover Publications, New York, 1956, p 80.

¹²V.K. Yatsunsky. *Istoricheskaya geografiya* (Historical Geography), Moscow, 1955, p 3.

¹³L.S. Berg. *Klimat i zhizn* (Climate and Life), Moscow, 1947.

¹⁴G.E. Grumm-Grzhimailo. The Growth of the Desert and Death of Pastures and Cultivated Land in Central Asia in the Historical Period. *Izv. Geograficheskogo obshchestva*, Vol. 11, Issue 5, 1933.

¹⁵N.Ya. Merpert, V.I. Pashuto, L.V. Cherepnin. Genghis-khan and His Heritage. *Istoriya SSSR*, 1962, 5: 56.

¹⁶L.N. Gumilev. The Heterochrony of the Moistening of Eurasia in Antiquity (Topography and Ethnos, IV). *Vestnik Leningradskogo universiteta*, 1966, 6: 64-71; *idem*. The Heterochrony of the Moistening of Eurasia in the Middle Ages (Topography and Ethnos, V). *Vestnik Leningradskogo universiteta*, 1966, 18: 81-90.

¹⁷The Chinese emperor Ch'ien Lung carried out a mass extermination of the Oirats, the Manchus, moreover, hunting down women, children, and old people, giving quarter to no one. Official Chinese history limited itself to a simple reference: 'More than a million Oirats were killed'. A tremendous event sank into red tape; and was it really the only one?! We know human history, alas, in various degrees of detail, equivalent to a geographer having a 1:200 000 map on one plane table and one of 1:100 on another.

¹⁸E. Le Roy Ladurie. *Histoire du climat depuis l'an mil*. Flammarion, Paris, 1967, pp 16-17.

¹⁹*Ibid.*, p 17.

²⁰Karl Marx and Frederick Engels, *The German Ideology*. Progress Publishers, Moscow, 1976, p 34.

²¹V.I. Kozlov, V.V. Pokshishevsky. Ethnography and Geography. *Sovetskaya etnografiya*, 1973, 1: 3-13.

²²B.V. Andrianov, N.N. Cheboksarov. Economic-Cultural Types and the Problems of Mapping Them. *Sovetskaya etnografiya*, 1972, 5: 12.

²³Ya. Ya. Roginsky, M.G. Levin. *Osnovy antropologii* (Fundamentals of Anthropology), Moscow University Press, Moscow, 1955, pp 325-329.

²⁴Yu.V. Bromley. Experience of Typologizing Ethnic Communities. *Sovetskaya etnografiya*, 1972, 5: 3-4.

²⁵V.I. Kozlov, V.V. Pokshishevsky. *Art. cit.*

²⁶See: V.I. Kozlov. *Dinamika chislennosti narodov* (The Dynamics of the Size of Peoples), Nauka, Moscow, 1969, p 56.

²⁷E.M. Murzaev. *Priroda Sintsyana i formirovanie pustyn Tsentralnoi Azii* (The Nature of Sinkiang and the Formation of the Deserts of Central Asia), Nauka, Moscow, 1968, pp 185-190.

²⁸N.Ya. Bichurin (Iakinf). *Sobranie svedenii po istoricheskoi geografii Vostochnoi i Sredinnoi Azii* (Digest of Information on the Historical Geography of Eastern and Central Asia). Compiled by L.N. Gumilev and M.F. Khvan. Cheboksary, 1960, p 558.

²⁹See: *The Book of Sir Marco Polo*. Translated and edited, with notes by Sir Henry Yule. 2 Vols. 3rd ed. London, 1903.

Chapter Two

THE PROPERTIES OF AN ETHNOS

containing a list of the features of an ethnic phenomenon as such, compiled so as to make it possible to give a general explanation of ethnogenesis, the process in which ethnoi arise and disappear

Ethnos and Ethnonym

Names deceive. When one is studying the general patterns of ethnology one must remember above all that a real ethnos and an ethnonym, i.e. ethnic name, are not the same thing. We often encounter several different ethnoi bearing one and the same name; conversely, one ethnos may be called differently. The word 'Romans' (*romani*), for instance, originally meant a citizen of the *polis* Rome, but not at all the Italics and not even the Latins who inhabited other towns of Latium. In the epoch of the Roman Empire in the first and second centuries A.D. the number of Romans increased through the inclusion among them of all Italians—Etruscans, Samnites, Ligurians, Gauls, and many inhabitants of the provinces, by no means of Latin origin. After the edict of Caracalla in A.D. 212 all free inhabitants of municipalities on the territory of the Roman Empire were called 'Romans', i.e. Greeks, Cappadocians, Jews, Berbers, Gauls, Illyrians, Germans, etc. The concept 'Roman' lost its ethnic meaning, as it were, but that was not so; it simply changed it. The general element became unity not even of culture, but of historical fate, instead of unity of origin and language. The ethnos existed in that form for three centuries, a considerable period, and did not break up. On the contrary, it was transformed in the fourth and fifth centuries A.D., through the adoption of Christianity as the state religion, which began to be the determinant principle after the fourth oecumenical council. Those who recognized these councils sanctioned by the state authority were Romans, and those who did not became enemies. A new ethnos was formed on that basis, that I conventionally call 'Byzantine', but they themselves called themselves 'Romaic', i.e. 'Romans', though they spoke Greek. A large number of Slavs, Armenians, and Syrians were gradually merged among the Romaic, but they retained the

name 'Romans' until 1453, until the fall of Constantinople. The Romaic considered precisely themselves 'Romans', but not the population of Italy, where Langobards had become feudal lords, Syrian Semites (who had settled in Italy, then becoming deserted, in the first to third centuries A.D.) the townsmen, and the former colons from prisoners of war of all peoples at any time conquered by the Romans of the Empire became peasants. Florentines, Genoese, Venetians, and other inhabitants of Italy considered themselves 'Romans', and not the Greeks, and on those grounds claimed the priority of Rome where only ruins remained of the antique city.

A third branch of the ethnonym 'Romans' arose on the Danube, which had been a place of exile after the Roman conquest of Dacia. There Phrygians, Cappadocians, Thracians, Galatians, Syrians, Greeks, Illyrians, in short, all the eastern subjects of the Roman Empire, served sentences for rebellion against Roman rule. To understand one another they conversed in the generally known Latin tongue. When the Roman legions left Dacia, the descendants of the exiled settlers remained and formed an ethnos that took the name 'Romanian', i.e. 'Roman', in the nineteenth century.

If one can treat the continuity between 'Romans' of the age of the Republic and the 'Roman citizens' of the late Empire, even as a gradual extension of the concept functionally associated with the spread of culture, there is no such link even between the Byzantines and the Romans, from which it follows that the word changed meaning and content and cannot serve as an identifying attribute of the ethnos. It is obviously also necessary to take into consideration the context in which the word and so the epoch has a semantic content because the meaning of words changes in the course of time. That is even more indicative when we analyze the ethnonyms 'Turk', 'Tatar', and 'Mongol', an example that cannot be left aside.

Examples of camouflage. In the sixth century A.D. a small people living on the eastern slopes of the Altai and Khangai mountains were called Turks. Through several successful wars they managed to subordinate the whole steppe from Hingan to the Sea of Azov. The subjects of the Great Kaghhanate, who preserved their own ethnonyms for internal use, also began to be called Turks, since they were subject to the Turkish Khan. When the Arabs conquered Sogdiana and clashed with the nomads, they began to call all of them Turks, including the Ugro-Magyars. In the eighteenth century European scholars called all nomads 'les Tartars', and in the nineteenth century, when linguistic classification became fashionable, the name 'Turk' was arrogated to a definite group of languages.

Many peoples thus fell into the category 'Turk' who had not formed part of it in antiquity, for example the Yakuts, Chuvash, and the hybrid people, the Ottoman Turks (about whose origin I have spoken above).

The modification of the ethnonym 'Tatar' is an example of direct camouflage. Up to the twelfth century this was the ethnic name of a group of 30 big clans inhabiting the banks of the Korulen. In the twelfth century this nationality increased in numbers, and Chinese geographers began to call all the Central Asian nomads (Turkish-speaking, Tungus-speaking, and Mongol-speaking), including the Mongols, Tatars. And even when, in 1206, Genghis-khan officially called all his subjects Mongols, neighbours continued for some time from habit to call them Tatars. In this form the word 'Tatar' reached Eastern Europe as a synonym of the word 'Mongol', and became acclimatized in the Volga Valley where the local population began, as a mark of loyalty to the Khan of the Golden Horde, to call themselves Tatars. But the original bearers of this name (Kereites, Naimans, Oirats, and Tatars) began to call themselves Mongols.¹ The names thus changed places. Since that time a scientific terminology arose in which the Tatar anthropological type began to be called 'Mongoloid', and the language of the Volga Kipchak-Turks Tatar. In other words we even employ an obviously camouflaged terminology in science.

But then it is not simply a matter of confusion, but of an ethnonymic phantasmagoria. Not all the nomad subjects of the Golden Horde were loyal to its government. The rebels who lived in the steppes west of the Urals began to call themselves Nogai, and those who lived on the eastern borders of the Jochi ulus, in Tarbagatai and on the banks of the Irtysh, and who were practically independent, because of their remoteness from the capital, became the ancestors of the Kazakhs. These ethnoi arose in the fourteenth and fifteenth centuries as a consequence of rapid mixing of various ethnic components. The ancestors of the Nogai were the Polovtsy, steppe Alans, Central Asian Turks, who survived a defeat by Batu, and were taken into the Mongol army, and inhabitants of the southern frontier of Rus, who adopted Islam, which became a symbol at that time of ethnic consolidation. The Tatars included Kama Bulgars, Khazars, and Burtasy, and also some of the Polovtsy and Ugric Mishari. The population of the White Horde was the same mixture; three Kazakh *jus* were formed from it in the fifteenth century. But that is not yet all.

At the end of the fifteenth century Russian bands from the Upper Volga began to attack the Middle Volga Tatar towns,

forced some of the population to quit their homeland and go off into Central Asia under the chieftainship of Sheibani-khan (1500-1510). There they were met as fierce enemies because the local Turks, who at that time bore the name of 'Chagatai' (after Genghis-khan's second son Chagatai, the chief of the Central Asian ulus), were ruled by descendants of Timur, the enemy of the steppe and Volga Tatars, who ravaged the Volga Valley in 1398-1399.

The members of the horde who quit their homeland took on a new name 'Uzbeks' to honour the Khan Uzbek (1312-1341), who had established Islam in the Golden Horde as the state religion. In the sixteenth century the 'Uzbeks' defeated Babur, the last of the Timurides, who led the remnants of his supporters into India and conquered a new kingdom for himself there. So the Turks who remained in Samarkand and Ferghana bear the name of their conquerors, the Uzbeks. The same Turks, who went to India, began to be called 'Moghuls' in memory of their having been, three hundred years earlier, subject to the Mongol Empire. But the genuine Mongols, who settled in eastern Iran in the thirteenth century, and even retained their language, are called Khazareitsy, from the Persian word *khazar* — a thousand (meaning a military unit, or division).

But where are the Mongols, by whose name the yoke that lay on Rus for 240 years is known? They were not an ethnos, because by Genghis-khan's will Jochi, Batu, Orda, and Sheibani each received 4 000 warriors, of whom only part came from the Far East. The latter were called 'Kins' and not 'Tatars', from the Chinese name of the Jurchen. This rare name occurred for the last time in the *Zadonshchina*, in which Mamai was called Kinnish. Consequently, the yoke was not Mongol at all, but was enforced by the ancestors of the nomad Uzbeks, who should not be confused with the settled Uzbeks, although they merged in the nineteenth century, and now constitute a single ethnos, who equally revere the Timurides and the Sheibanides, who were deadly enemies in the sixteenth century, because that enmity had already lost sense and meaning in the seventeenth century.

The helplessness of philology and history. The examples cited are sufficient to establish that the ethnic name or even the own name and the phenomenon of an ethnos as a stable collective of the species *Homo sapiens*, by no means cover each other. Therefore the philological method, which investigates words, is inapplicable in ethnology, and we have to turn to history, in order to check how far this discipline can help with the posing of my problem. But here, too, we come up against unexpected difficulties. The unit of

investigation employed by historical science is the social institution, which may be a state, a tribal union, a religious sect, a trading company, a political party, etc., in short, any institution in any age, and among any peoples. The institution of the state and the ethnos sometimes coincide, and then in some cases we observe nations of a modern type. But that is a case characteristic of the nineteenth and twentieth centuries; in antiquity such coincidences were rare. It happens that a religious sect unites like-minded persons who, like the Sikhs, for example, in India, merge into an ethnos; then the origin of people incorporated by the community is not taken into account. But such communities are often unstable and break up into ethnoi, as happened to the Muslim community founded by Muhammed in the seventh century A.D. While a process of the merging of Arab tribes, Syrians, and in part Persians, into a single ethnos took part under the first four Caliphs in the countries of Islam, that process had already ceased under the Ommiades (A.D. 651-750), and under the Abbasides, the descendants of the conquerors and the conquered merged into new ethnoi, with a single inter-ethnic culture conventionally called 'Muhammedan', with Arabic, and awareness of its unity by comparison with Christians and pagans, but with different historical fates and different stereotypes of behaviour, which were expressed in the creation of diverse sects and ideological conceptions.

The emirates and sultanates that arose through the isolation of ethnoi would seem to have corresponded to the ethnic boundaries, but that was not so. Successful commanders subordinated territories to themselves for a short time with a population speaking different languages, but these later became the victims of neighbours, i.e. the political formations had a different fate than the ethnic entity. Community of historical fate of course encouraged the formation and maintenance of an ethnos, but historical fate² can also be the same for two or three nationalities and different for two parts of a single one. The Anglo-Saxons and Celtic Welsh, for example, have been united state-wise since the thirteenth century, but they have not merged into one ethnos, which incidentally does not prevent them from living in peace; the eastern Armenians, already subject to Iran in the third century A.D., and the western, connected from that time with Byzantium, had different fates, but their ethnic unity was not disrupted. In the sixteenth and seventeenth centuries the French Huguenots and Catholics were very different in their historical fates, and even in the character of their culture, both before the Edict of Nantes, and after its repeal. But the ethnic integrity of France remained unaltered in spite of bloody wars and dra-

gonnades. The forming of an ethnos, i.e. ethnogenesis, consequently lies deeper than the apparent historical processes recorded by the sources. History can help ethnology but not replace it.

Mosaic Structure as a Property of an Ethnos

It is possible to manage without a gentile system. Many ethnoi are divided into tribes and clans. Can this division be considered an obligatory, essential quality of an ethnos? Or even the first stage in its formation? Or finally the form of a collective preceding the development of the ethnos itself? The reliable material at our disposal makes it possible to answer 'No!'.

First of all, far from all contemporary peoples have or had any kind of gentile or tribal division. There were not and are not such among the Spaniards, French, Italians, Romanians, English, Ottoman Turks, Great Russians, Ukrainians, Sikhs, Greeks (not Hellenes), and many other nations. But a clan or gentile system exists among Celts, Kazakhs, Mongols, Tungus, Arabs, Kurds, and a number of other peoples.

It is difficult to consider a gentile system an earlier stage, because the Byzantines or the Sassanid Persians were people formed a thousand years earlier than the Mongols and 1 200 years earlier than the Kazakhs, and they got along magnificently without clans and phratries. One can, of course, suppose that a system of clans was general in antiquity, but if so, such an assumption has no relation to the historical period when peoples (ethnoi) arose before the historian's eyes. It is more correct to recognize that the schema — clan, tribe, people, nation — applies to social development, i.e. lies on a different plane.

That the predominant forms of community life were different forms of family over the time of the existence of *Homo sapiens*, viz., group marriage, the punaluan family, pairing marriage, the monogamous family,³ is quite well substantiated and demonstrated, but it has no direct relation to my problem, since an ethnic entity does not coincide either with the family cell or with the level of production and culture. I must therefore look for other criteria and other identification signs in my study.

At the same time one must note that among peoples with a gentile-tribal system, the division into clans (among Celts), phratries (*seok* among Altaitsy), and tribal associations (*jus* among Kazakhs), etc., is constructive. These intraethnic units are needed in order to maintain the ethnic entity itself. The relations both of the separate

individuals to the ethnos as a whole, and of gentile or family collectives among themselves are regulated through the division into groups. Exogamy preventing blood-related marriages is only maintained by this means. The members of a clan or family express the will of their fellow-tribesmen at folk gatherings and create stable alliances so as to wage external wars, both defensive and offensive. In Scotland, for example, the clan system withstood the raids of Vikings in the tenth century, the attacks of feudal lords in the twelfth to fifteenth centuries, and war with the English bourgeoisie in the seventeenth and eighteenth centuries, and only capitalist relations were able to disrupt it. Where the clan system was less expressed, among the Elbe Slavs, for example, German and Danish knights made short work of it in two centuries (eleventh and twelfth), in spite of the undisputed bellicosity and enviable courage of the Bodrichi, Lutichi (Veleti), and the inhabitants of the island of Rügen. The division of an ethnos into tribes had the function of a skeleton on which muscles could grow, and so gather strength for struggle against the environment.

Let me try to propose another system of reference suitable not for some but for the whole aggregate of observed collisions.

What the gentile system was replaced by. How was the absence of gentile-tribal groups made good among quite developed peoples who were at the stage of class society? The class structure and class struggle in slaveowning, feudal, and capitalist formations are an established fact and do not need examinations. The division into classes cannot, consequently, be functionally analogous to division into tribes. And in fact we observe, parallel to the division of society into classes, a division of ethnoi into groups that by no means coincide with classes. They can be conventionally called 'corporations', but that word corresponds to the concept only as a first approximation, and will subsequently be replaced.

In feudal Europe, for example, the dominant class within an ethnos (the French, say) consisted of various corporations: (1) the barons or feudal lords in the direct sense, i.e. the holders of fiefs linked with crown by a vassal oath; (2) knights, united in orders; (3) *notables*, who constituted the apparatus of royal power (*noblesse des robes*); (4) the higher clergy; (5) scholars (for example, the professors of the Sorbonne); (6) the urban patriciate, which was itself divided territorially, and so on. According to the accepted degree of approximation one can distinguish a greater or less number of groups, but one must necessarily, in that connection, still allow for membership of parties, for example, the Armagnac and Burgun-

dian at the beginning of the fifteenth century. As for the popular masses, such a division is applicable to an even greater degree, since each feudal province then had a clearly expressed individual character. In the twelfth century, for example, people of Rouen displayed hostility to Philippe II Auguste, who had liberated them from the English, and the Provençals, learning of Louis IX's plan in Egypt, sang a *Te Deum*, hoping to be delivered from the *Sires*.⁴ We no longer see such corporations in bourgeois society, but the principle remains unchanged. For each individual within ethnoi there are, besides classes, people of 'his' circle and 'others'. But, as regards foreign expansion, all these groups acted as a single whole, as Frenchmen.

It is indisputable that 'corporations', as I have conditionally called them, are much less stable and viable than gentile-tribal groupings, but the latter, too, are not eternal. The difference between them and other groups is not, of course, one of principle. The similarity is that they have an identical functional purpose, maintaining unity of the ethnos through internal division.

The most important, and curious point is that 'corporations' differ from one another in their origin only by nuances of psychology, but the differences deepen and crystallize with time, passing into customs and rituals, i.e. into phenomena studied by ethnographers. The Old Slavonic kissing custom, for example, was transformed in Russia and Poland into kissing of the hands of married ladies and was retained among the landed nobility, but disappeared from the life of other strata of the population.

Maxim Gorky, who observed the life of the lower middle class and middle class intellectuals in the Volga towns, noted such deep differences that he suggested treating these recently formed groups of the population as 'different tribes'. To some extent that was true, and Gorky was right in recording the differences in everyday life, morals, and notions, and his observances were fruitful. In our day these differences have been nearly wiped out. They were characteristic of a short period—around 80 years—but I have already said that the duration of a phenomenon does not affect the fundamental aspect of the matter.

The formation of ethnic subgroups. The concept of 'corporation' in the sense proposed is clear, but it is not sufficient for my analysis since it suggests that a given unit is not only formed from ethnographic features but is also demarcated from other 'corporations' by social barriers. Subethnic subdivisions often do not coincide

with social ones, which indicates that the example adduced is a partial case of the general rule I am seeking.

Let us turn to the ethnogenesis of the French. In the sixteenth century the Reformation affected this people, and reshuffled all the former 'corporations' among them till they were unrecognizable. The feudal aristocracy, the petty nobility, the bourgeoisie, and the peasantry proved to be split into 'Papists' and 'Huguenots'. The social bases of both groups did not differ, but ethno-territorial subdivisions were distinctly visible. Calvinism was successful among the Celts of the lower Loire, where merchant La Rochelle became a stronghold of the reformers. The Gascon seigneurs and Kings of Navarre adopted Calvinism. The descendants of the Burgundians, the peasants of the Cevennes, and the heirs of the Albigenses, the bourgeois of Languedoc, joined the movement. But Paris, Lorraine, and Central France remained faithful to the Roman Church. All the former 'corporations' disappeared, since belonging to a 'community' or 'church' became an indicator, for two centuries, of membership of one ethnic subunit or another.

One cannot say that theology played a decisive role. Most Frenchmen were 'politicians', i.e. refused to be interested in the disputes of the Sorbonne and Geneva. The illiterate Gascon barons, the semi-savage Cevennes highlanders, the bold corsaires of La Rochelle, or the artisans of the suburbs of Paris and Angers by no means understood the fine points of the interpretation of Predestination or Pre-existence. If some gave their lives for the Mass or for the Bible, that meant that the one or the other was a symbol of their self-assertion and opposition to one another, and so an indicator of deep contradictions. These were not class contradictions, since nobles, peasants, and bourgeois fought on both sides. But Catholics and Huguenots really were divided by stereotypes of behaviour, and that, as we agreed at the beginning, is the main principle of ethnic peculiarity, for which there are adequate grounds.

But what if the Huguenots had kept a patch of land for themselves and created an independent state like, say, the Swiss or the North Americans? They would probably have been regarded as a special ethnos arising through the zigzags of historical fate, because they would have had a special way of life, culture, mentality, and perhaps language, since they would hardly have conversed in Parisian, but would rather have chosen one of their local dialects. It would have been a process similar to the separation of the Americans from the English.

The Scots are undoubtedly an ethnos, but they are composed of Highlanders (Celts) and Lowlanders (inhabitants of the valley of the Tweed). Their origin is different. The old population, the Caledonians (Picts) who painted themselves repulsed the onslaught of the Romans in the first and second centuries A.D. In the third century Scots migrating from Ireland were added to them. Both tribes made destructive raids on Romanized Britannia, and then on the northern fringes of England, and fought against the Norwegian Vikings who had established themselves in the east of the island. In A.D. 954 the Scots were fortunate: they conquered Lothian, the plain on the banks of the Tweed settled by descendants of Saxons and Norse Vikings. The Scottish kings acquired many rich subjects and, enjoying their aid and support, limited the independence of the chiefs of the Celtic clans. But they had to adopt many of the customs of their subjects, in particular feudal institutions and manners and customs. The rich, energetic inhabitants of Lothian compelled their Celtic sovereigns to turn Scotland into a small kingdom, because they had taken on defence of the borders with England. In the fourteenth century French adventurers, comrades-in-arms of John Baliol and Robert Bruce, poured into Scotland for the war with England. The French increased the number of border barons. The Reformation mainly embraced the Celts, but in the valleys Catholics held their ground with the Calvinists. In short, races and cultures, a clan system and feudalism were merged during the genesis of this people, but the complexity of its composition did not disrupt its monolithic ethnic character, which was manifested in clashes with the English, and later with Irish.

Russian Old Believers are another characteristic example of a different order. They were a small section of the Great Russians who did not adopt certain reforms of Church ritual proclaimed by the Patriarch Nikon in the seventeenth century. At that time the church service had the function not only of religion, but also of a synthetic art, i.e. filled an aesthetic vacuum. Therefore the requirements in performance of the rites and rituals were very high. But, as in our day, far from all immediately recognized and adopted the new style and trend in music or, for example, in painting, so the replacement of dark images in the seventeenth century by new rose and blue icons shocked a certain part of the worshippers. They simply could not concentrate in a situation that irritated them.

In reality, there was almost the same split of the ethnos as happened in Western Europe during the Reformation. Not all the Orthodox Christians plumped for the old ritual, but those who did clung firmly to it, fearing neither execution nor torture. When there

was a chance they passed to the counter-attack, and dealt with the iconolaters as sharply as they with them. That happened during the Strelets uprising at the time of the regency of Czarevna Sophia. The heat of passions was identical on both sides. In the seventeenth century the dispute was only about Church ritual, but in other respects (in everyday life, the system of education, habits and customs) the Old Believers were indistinguishable from the general mass of Russians. In the second generation, under Peter the Great, they constituted a definite, isolated group of the population. At the end of the eighteenth century customs, rituals, and dress developed, and partly were retained, among them, that differed markedly from those generally accepted. Catherine II banned persecution of Old Believers, but that did not lead to their merging back into the main mass of the ethnos. Millionaire merchants, Cossacks, and the semi-destitute Transvolgan peasants formed part of the newly formed intraethnic entity. This entity, initially united by a community of fate, i.e. by attachment to principles so dear that they went to their death for them, became a group united by a community of way of life, headed by spiritual leaders (teachers) of various branches and trends. In the twentieth century it gradually began to break up, since the reason for its origin had long ceased to exist, and it only remained through inertia.

The examples I have cited are clear, but rare. The functions of intraethnic groups were more often assumed by naturally formed territorial associations of fellow-countrymen. The existence of such divisions, like the existence of phratries in the gentile system, does not undermine ethnic unity.

We can now draw conclusions. The social forms in which intraethnic entities are embodied are vague and do not always coincide with the subdivisions of an ethnos. Intraethnic splintering is a condition that maintains the unity of the ethnos and gives it stability. It is characteristic of any time and stage of development.

Variants of ethnic contacts. So far I have examined separate groups within big ethnoi, but the problem is by no means exhausted by that. Pure forms of ethnoi are not observed in the real historical process, but rather various variants of ethnic contacts arising in territories inhabited by different ethnoi, united politically in a polyethnic state. Four variants can be distinguished when we study their relations: (a) coexistence, in which the ethnoi do not merge and do not imitate each other, borrowing only technical innovations; (b) assimilation, i.e. the swallowing-up of one ethnos by another with complete forgetting of origin and old traditions; (c) cross-breeding,

in which traditions of the preceding ethnoi and a memory of the ancestors are retained and combined (these variants are usually unstable, and exist through replenishment by new metises); (d) merging, in which the traditions of the original components are forgotten and a third, new ethnos arises alongside the two precursors, or in place of them. That is essentially the main variant of ethnogenesis. For some reason it is observed less frequently than all the others.

Let me illustrate this four-part schema by clear examples. Variant *a* is the most common.

All things and phenomena are recognized by their interactions. Soda and citric acid poured together give a reaction of neutralization with a vigorous fizzing only when water is poured on them. In history reactions go on all the time, as in an aqueous solution, and there is no hope of that being finished.

Even the simple coexistence of different ethnoi with rapprochement and growing intimacy is not neutral. Sometimes it is simply necessary. In the upper reaches of the Congo, for instance, Bantu and pygmies live in a symbiosis. The Negroes cannot move in the forest, except by paths, without the help of the pygmies, while the paths are rapidly overgrown unless cleared. The Bantu can get lost in the forest, like a European, and die within twenty metres of his own home. But the pygmies need knives, vessels, and other articles of daily use. For these two ethnoi dissimilarity is the guarantee of well-being, and their friendship is founded on that.

A variant of lengthy coexistence with constant enmity was well described by Leo Tolstoy, who observed the skirmishes of Greben Cossacks and Chechens. But he faithfully noted the mutual respect of the two neighbouring ethnoi and the wariness of the Cossacks toward the soldiers who were the pioneers on the Terek of assimilation of the Cossacks by the Great Russians, which was completed by the beginning of the twentieth century.

Variant *b*, assimilation, usually occurs through methods not so much bloody as shameful. The object of assimilation is presented with an alternative: abandon either conscience or life. It can avoid death by repudiating everything dear and accustomed for the sake of being converted into a second-class person among the victors. The latter also gain little since they acquire hypocritical and, as a rule, inferior fellow-countrymen, because only the outward manifestation of the behaviour of the conquered ethnos can be controlled, and not its mood. The Irish persuaded the English of that in the nineteenth century, Simon Bolivar's partisans the Spaniards,

and the Dungans the Chinese. There are too many examples but the matter is clear.

Variant *c*—cross-breeding—is observed very often, but the progeny of exogamous marriages either die out in the third or fourth generation, or break up into paternal and maternal lines. For example, in the sixteenth century the Turks considered it sufficient to pronounce the formula of professing Islam and submitting to the Sultan to become a true Turk. In other words they regarded ethnic affiliation a 'state' that could be changed at will. Turks therefore willingly took any adventurers into service if they were specialists in some craft or in the art of war. The consequences of that made themselves felt within a hundred years.

The decline of the Sublime Porte in the seventeenth century attracted the attention in its time of contemporaneous Turkish writers. In their view *ajen-oglanı*, i.e. the children of renegades, were the reason for the decline. The influx of the foreign-born spoiled the stereotype of behaviour, which told in the venality of viziers, the purchasability of judges, the fall in the fighting capacity of troops, and the collapse of the economy. By the beginning of the nineteenth century Turkey had become the 'sick man'.

The role of exogamy. The introduction of foreigners into Turkey sharpened the crisis of class contradictions already growing without that, for which the conversion of ethnic unity into a chimaera played the role of catalyst, because everyone understood that sincere, loyal officials were more valuable than hypocritical, unprincipled ones. Conversely, the development of class contradictions played the role of a vector for the ethnogenesis of the Ottoman ethnoses. The combination of ethnic and social processes in one region was a factor of the anthropogenic destruction of the terrain of what had once been the richest countries in the world, called in antiquity the 'Fertile Crescent'. Selim I's conquest in the sixteenth century put Syria, Palestine, Egypt, and Mesopotamia, where intensive agriculture had already transformed the original landscape in the third millennium B.C., into the hands of the Ottoman sultans.

The Sumerians had 'divided the water from the land' in the lower reaches of the Tigris and Euphrates, and contemporaries called the land they created 'Eden'. The Akkadians built Babylon, the 'Gate of God', the first city in the world with a million inhabitants, for which there was enough food without imports from far countries. Antioch, and later Damascus, were large, gay, cultured cities flourishing at the expense of local resources. Asia Minor fed huge Constantinople.

But the cultivated landscape had to be constantly maintained. The Arab Caliphs had understood that, buying slaves in Zanzibar to keep up irrigation in Mesopotamia, and also the Byzantine autocrats who had reinforced the small peasant farms by special edicts, as the most intensive in those natural conditions, and even the Mongol Ilkhan Ghasan, who organized the building of a canal in the waterless part of northern Mesopotamia. The disintegration of the cultivated terrain of Western Asia set in later, in the seventeenth to nineteenth centuries, during the profound peace and decline of the Ottoman Empire, because the Syrian, Iranian, and Cilian peasants, worn out by exactions, abandoned their plots and sought a better lot in the pirate coastal cities, where one could either get rich easily or lay down one's life. And those who stayed at home through laziness or cowardice, neglected the irrigation and turned the country, once rich and abundant, into a wasteland.

The beginning of that terrible, disastrous process was already visible to contemporaries. The French adventurer and doctor in Aureng-Zebe's guard, François Bernier, who had observed similar things in India under the rule of the 'Great Moghul', predicted, in a letter to Colbert, the inevitable weakening of the three great Muslim empires—India, Turkey, and Persia—considering, as regards the last-named, that the decline would be slow since the Persian aristocracy was of local origin.⁵ And I must agree with him that, with a stable social system, and one and the same formation, but with a changing ratio of the ethnic components in the political system (state), the state of the countryside like a sensitive barometer, indicates the beginning or the existence of rises and falls, and of periods of stabilization.

That being so, we have no grounds for denying the cause of the decline mentioned above, namely the appearance in the system of new ethnic groups not linked with the terrain of the region, and limitations on exogamous marriages, because these bans, by maintaining the mixed ethnic nature of the region, lead to the preservation of terrains containing small ethnic groups. But since that is so, then free intercourse and free love ruin nature and culture!

That is an unexpected and alarming conclusion—but it is a paraphrase of Newton's second law, viz., that what is gained in social freedom is lost through contact with nature, or rather with the geographical environment and one's own physiology, because nature lies also within our bodies.

Since similar phenomena occurred in both Rome and ancient Iran, and in many other countries, one can easily note a general pattern. When there is endogamy as an ethnic barrier, things pro-

ceed more slowly and less painfully; but it is not all the same for an ethnos whether it takes 300 or 1 000 years. Bromley's observation about the stabilizing role of endogamy as a barrier against incorporation is therefore indisputable.⁶

An experiment in interpretation. Let us try to interpret the phenomenon described. If ethnoi are processes, then, when two dissimilar processes clash, interference will arise disturbing the rhythm of both components. The resulting association will be chimeric, which means unstable to outside effects and short-lived. Death of the chimeric system will entail annihilation of its components and extinction of the people involved in the system. Such is the general mechanism of the disruption of the pattern, but it has its exceptions, namely that with slackening of the original rhythms a new one sometimes arises, i.e. a new ethnogenetic inertial process. I shall not say yet what this is associated with, because this is too serious a matter to resolve as a side-issue. But endogamy is clearly necessary in order to maintain ethnic traditions, because the endogamous family passes on a developed stereotype of behaviour to a child, while an exogamous one passes on two stereotypes that mutually cancel each other out. Exogamy, which is not related at all to 'social states' and lies on a different plane, thus proves to be a factor of ethnogenesis, i.e. a real, destructive factor during contact on a superethnic level. And even in rare cases when a new ethnos develops in a zone of contact, it absorbs, i.e. annihilates, both of the former ones. In conclusion, let me point out that in the example cited, and also in the overwhelming majority of cases, the racial principle plays no role. It is not a matter of somatic differences, but rather of behavioural ones, because the steppe dwellers, Tibetan hillmen, and Chinese belonged to a single, first-order Mongoloid race, and it is obvious that, with closer approximation to second-order race, North Chinese are racially closer to Xiang-bi and Tibetans than to Southern Chinese. But the outward similarity of cranial indices, eye colour, hair colour, epicanthus, etc., has no significance for ethnogenetic processes.

It is also obvious from the example adduced that the link between ethnos and topography, sometimes doubted, really exists. The Hunni, having seized the valley of the Huangho, pastured their cattle there; the Chinese acquired the arable, and built canals; but their hybrids, not having the skills of either cattle-herding or cultivation, predatorily fleeced neighbours and subjects, which led to the formation of long-fallow lands and restoration of the natural biocoenosis, although impoverished by the cutting down of forests

and the killing of ungulates during the emperors' hunts. Everything tallies.

So, not only do theoretical considerations but also the necessity of interpreting the factual data force us to reject the conception of an ethnos as a state. But if an ethnos is the result of a long-lasting process of ethnogenesis, it is part of the biosphere of Earth, and since changes of terrain through the use of technique are linked with an ethnos, ethnology should be ranked among the geographical sciences although it draws its initial material from history in the narrow sense of the term, i.e. study of events in their connection and sequence.

The Ethnic Stereotype of Behaviour

Dissimilarity as a principle. Every ethnos has its own inner structure and its unique stereotype of behaviour. Sometimes the structure and stereotype change from generation to generation. That indicates that the ethnos is developing, and that ethnogenesis is not, as a rule, dying away. The structure is sometimes stable, because each new generation reproduces the life cycle of the preceding one. Such ethnoi can be called persistent, i.e. enduring, but I shall be going into that aspect of the matter below, and for the present will make the concept 'structure' more precise irrespective of its degree of stability and the character of its variability.

The structure of an ethnos is a strictly defined standard of relations: (a) between the collective and individual; (b) between individuals; (c) between intraethnic groups; (d) and between the ethnos and its intraethnic groups. These norms are unique in each case, do not exist visibly, change now rapidly and now slowly in all fields of living and everyday life, being perceived in a given ethnos, and in each separate epoch, as the sole possible mode of society and community life, and therefore by no means arduous for its members. On the contrary, each member of one ethnos, on coming into contact with another, is surprised and bewildered, and tries to tell his fellow-tribesmen about the funny ways of the other people. Properly speaking, such stories constitute the science of ethnography, as ancient as interethnic connections themselves.

Let me cite some examples. The Athenian, who had been to Olvia, related with indignation that the Scythians had no houses, and got dead drunk during their festivals. The Scythians, observing the bacchanalias of the Greeks, felt such loathing that once, having

seen their own king, who was staying in Olvia, in a wreath and with a thyrsus in his hands, in a procession of jubilant Hellenes, killed him. The Jews hated the Romans because they ate pork, while the Romans considered the custom of circumcision unnatural. The knights who conquered Palestine, were outraged by the Arab custom of polygamy, while the Arabs considered the uncovered faces of French ladies shameless, and so on. There is a great number of examples.

Ethnographic science has overcome such ingenuousness, and taken into observation systems principles as the operative standards of the relations of individuals of these different categories to the collective as a whole and to each other. Let me take as an example the simple case of marital-sexual relations. Roughly speaking, we know monogamous, polygamous, and polyandrous families, group marriages, unstable pairing marriages, compulsory inheritance of wives (levirate), and even sometimes full freedom of sexual relations. Among some peoples, we know, artlessness is compulsory in marriage for girls, and among others preliminary training in love techniques. Divorce is sometimes easy, sometimes difficult, sometimes impossible at all. Among some peoples the cohabitation of wives with other men is punished as marital infidelity, among others it is encouraged.

We can analyze variations of the perception of sense of duty in just the same way. In feudal England or France, a vassal was obliged to serve only if he received a benefice ('salary'). Lacking such he had the right to transfer to another suzerain (for example, to the Spanish king). Only transfer to an infidel, for example to Muslims, was considered treason, but that happened so often that a special term 'renegade' arose (without a pejorative nuance). In Rome or Greece, on the contrary, the performance of social obligations was not accompanied with payment but was the duty of a citizen of the *polis*. These citizens, incidentally, frequently got so much profit from public work that they rewarded themselves beyond measure.

The strength of the ethnic stereotype of behaviour is immense because the members of an ethnos perceive their own stereotype as the only one worthy of a man who has the right to respect, while all others are 'barbaric' or 'savage'. That is why European colonizers called Indians, Africans, Mongols, and even Russians savages, although the same could as rightly be said of the English. But Chinese haughtiness was even more categorical. Here, for example, is what a geographical handbook of the Ch'in epoch said about France: 'It lies in the south-western sea... In 1518 the

king sent an envoy with credentials and requested that he be recognized as king.⁷

The variability of behaviour stereotypes. An ethnos's stereotype of behaviour is as dynamic as the ethnos itself. Rituals, customs, and standards of relationship sometimes change slowly and gradually, and sometimes very quickly. Take England, for example. Can one really recognize the descendants of the berserker Saxon who murdered Celtic babies in the gay outlaw Robin Hood or the archer of the 'White Bands', and his heir in the pirate-sailor of Sir Francis Drake, or in Cromwell's Ironsides? And their heir, the City clerk in London? But England had always been a country with stable traditions! What should be said about other ethnoi, whose image has not only been influenced by internal development but also by incidental external effects (cultural borrowings, conquests involving forced changes of customs) and, finally, by economic pressures changing the ethnos's kind of occupations and violently regulating its needs.⁸

When speaking of an ethnos's stereotype of behaviour, we always have to indicate the epoch we are concerned with. And it should not be thought that so-called 'savage' or 'primitive' tribes are more conservative than 'civilized' nations. That idea arose exclusively as a consequence of lack of study of Indians, Africans, and Siberian peoples. It was sufficient to organize the sale of whisky in Canada, or to import tinned goods into Tahiti in exchange for copra, immediately to alter the behaviour pattern of the Dakotas and Polynesians, seldom for the better. But, in all cases, the changes took their own path on the basis of already established habits and notions. That is the uniqueness of any ethnogenetic process, and the reason why these processes never copy one another. But there is also a pattern to it if one only knows how to find it.

Any number of examples could be proposed, including ones about complex standards of behaviour affecting legal, economic, social, everyday, religious, and other relations, however complex. In the jargon of the humanitarian sciences the phenomenon described is known as a tradition or modification of social relations, but on the plane of the natural sciences it is as legitimately treated as a stereotype of behaviour that varies in local zones and intraspecific populations. The second aspect, though unaccustomed, is, as we shall see below, fruitful.

So, an ethnos is a collective of individuals that distinguishes itself from all other collectives. It is more or less stable, although it arises and disappears in historical time. There is no one real attribute for defining an ethnos applicable to all the cases known to us. Lan-

guage, origin, customs, material culture, and ideology are sometimes determinant elements, but sometimes not. Let us take just one, viz., each individual's recognition that 'we are such-and-such, and all others are different'. Since this phenomenon is general, it consequently reflects some physical or biological reality that is also my sought-for quantity. This 'quantity' can only be interpreted by analyzing the origin and disappearance of ethnoi, and establishing the fundamental differences of ethnoi from each other, and subsequently describing the behaviour pattern of either of them so as to distinguish their differences by means of comparison. But one must remember that an ethnos's behaviour changes with age, i.e. from the time of its entry onto the historical arena. It is therefore necessary to introduce into the analysis a means of recording the ethnodynamics so as to get a second approximation of the concept 'ethnos'. Such will be the psychological element, on the one hand inherent in all people without exception, and on the other hand quite variable, so as to serve as an indicator of the ethnic dynamics. It is the relation of an ethnos as an entity to the category of time.

Ethnos and the four sensations of time. What is 'time'? No one knows. But people have learned to measure it. Even the most primitive peoples, who have no need of a linear reckoning of time from some arbitrary date—'the foundation of Rome', 'The Creation', the 'Birth of Christ', the 'Hegira' (Muhammed's flight from Mecca to Medina), etc.—distinguish day and night, the seasons, a 'living chronology' according to the dates of their own life, and finally cyclicity, i.e. the week, month, twelve years, each of which bears the name of an animal (the Turko-Mongolian calendar). The linear reckoning of time, as comparative ethnography has shown, develops when an ethnos begins to feel its history not as something exclusive, but in connection with the history of neighbouring countries. And as knowledge accumulates a quantification of time arises in people's consciousness, i.e. its division into epochs or ages, very unequal in length but equivalent as regards content of events. The category of 'time' clashes here with the category of 'force', i.e. the cause stimulating acceleration, in the special case, of the historical process.

Such a diversity of systems indicates that it responds to serious changes in the consciousness of an ethnos itself, which indicates in turn a change of its ages. For my purpose the system of reckoning is not important, but rather the difference in concepts of past, present, and future.

When an ethnic community enters on the first creative period of its becoming, the leading part of its population pushing the whole system along the path of ethnic development, amasses material and ideological values. This accumulation becomes an 'imperative' in the field of ethics and is transformed as regards time into a feeling the sense of which is that each active builder of the ethnic entity feels himself a continuer of the ancestral line, to which he adds something (another victory, another building, another copied manuscript, another forged sword). This 'other' suggests that the past has not gone, but is in him, in the person, and it therefore behoves him to add whatever is new, because the past is thus accumulated and advanced. Each minute lived is perceived as addition to the existing past (*Passé existente*).

A result of this perception of time is the feats of heroes, who have voluntarily laid down their lives for the fatherland—the Spartan basileus Leonidas at Thermopylae, the consul Marcus Attilius Regulus in Carthage, Roland at the pass of Roncevalles—this being equally applicable to the historical Count of the Breton Marches and the literary hero of the *Song of Roland*. Such, too, were the warrior monks Peresvet and Oslabya, who served with St. Sergius of Radonezh and died in the battle of Kulikovo, and the Kerait warrior Khadakh-Baatur, who diverted Genghis-khan's troops onto himself so as to let 'his natural khan' escape. In Europe people of that type built the Gothic cathedrals, without perpetuating their names, in India carved the marvellous statues in the cave temples, in Egypt built the pyramids, in Polynesia discovered America and brought back to their fellow-countrymen the *kumara* (batata or sweet potato). An absence of personal self-interest is characteristic of them. They seem to have loved their cause or work more than themselves. But it was not altruism. The object of their love was in themselves, but not just in themselves. They felt themselves not simply the heirs of great traditions but also participants in them and gave their dear lives for them in an hour (as in war) or in everyday work (as builder-architects). They acted in accordance with their neuro-psycho-physical stamp, and the determinant vector and character of their activity. People of that stamp are encountered in all epochs, but there are rather more of them in the initial stages of ethnogenesis than in other ages. As soon as the proportion of them diminishes a time sets in that we are accustomed to call 'flourishing', which should more correctly be called 'squandering'.

Thought of the past is replaced by actualism. People of that stamp forget the past and do not want to know the future. They want to live now and for themselves. They are courageous, en-

ergetic, talented, but what they do they do for their own sake. They, too, perform feats but for the sake of their own greed; they strive for the highest positions in order to enjoy their power, because only the present is real for them, which they inevitably understand as their personal present. Such were Gaius Marius and Lucius Cornelius Sulla in Rome, Alcibiades in Athens, the Prince of Condé, Louis XIV, and Napoleon in France, Ivan the Terrible in Russia, the Sui emperor Yang-di in China (A.D. 605-618). But it is impossible even to list the writers, artists, professors, etc., who sometimes performed grandiose feats only in order to glorify their names! But such, too, are the gay rakes, bon vivants, and wastrels. They also live for today and for themselves. When the percentage of people of this stamp in an ethnos increases, the heritage accumulated by their sacrificing ancestors is rapidly squandered, which creates a false impression of abundance, and which is why it is considered 'flourishing'.

The reader may get an opinion that I condemn people of that mould. No! Their perception of time is as legitimate a phenomenon as that described above, and does not depend on their wishes but on the peculiarities of higher nervous activity. They could not be otherwise, even if they wanted to. The famous maxims 'Every dog has his day' and 'After me the deluge' were not cynicism but sincerity, and the presence of people of this stamp in an ethnos leads not to its disappearance but only to a cessation of growth, which is sometimes even expedient because these people, while doing no harm to themselves, do not make it their aim to inflict sacrifices on their neighbours, and the striving for an unlimited expansion of the ethnic territory is replaced by fixing natural frontiers.

A third possible and really existing variant of the attitude to time and the world is an ignoring not only of the past but also of the present, for the sake of the future. The past is rejected as disappeared, the present as unacceptable, and only the dream is recognized as real. The clearest examples of this perception of the world are the idealism of Plato in Hellas, Jewish chiliasm in the Roman Empire, and the sectarian movements of a Manichaeian (Albigensian) and Marcionite (Bogomil) hue. The Arab Caliphate, too, did not escape the futurist effect (as it is most correctly called) when, from the ninth century A.D., the Bedouins of Bahrein adopted the Karmathian ideological system and spread through Syria, Egypt, and Iran. The Karmathians established a dynasty, the Fatimids, in Egypt, and seized mountain fortresses in Iran (Alamut, Girdekukh, and Lumbasar) from which they dictated their will to Muslim sul-

tans and emirs. The Persians called them Ismailites and the Crusaders Assassins.

The ideology of the Karmathians was frankly idealistic, but not religious. According to their teaching the world consisted of two halves, mirror reflections of each other. In this world it was bad for them, the Karmathians; they were oppressed, humiliated, and robbed. In the anti-world everything was the opposite; they, the Karmathians, would oppress, humiliate, and rob Muslims and Christians. One could only pass to the anti-world with the aid of the 'living god' and of teacher-elders appointed by him, to whom it was necessary, of course, to submit and pay money. There was nothing religious in this system. The striving to represent the teaching of the Karmathians as an ideology of struggle of the oppressed against feudal lords reflects only one aspect of the matter, and not the most important one. The Fatimids in Cairo and Hassan Sabbah in Alamut were exactly the same kind of oppressors of the peasants as their opponents, although they sometimes made use of social contradictions in the interests of their policy. And indeed, could a band or sect express the interest of the broad masses?

In ancient China, however, the futuristic perception of time that was manifested in the third century A.D. led the people to the peasant uprising of the 'Yellow Turbans'. In addition to the real class contradictions during the later Han dynasty (A.D. 25-220), Taoist scholars had been expelled from all posts in the state service by Confucianists, and forced to earn their living by treating illnesses and forecasting the weather. This wretched existence did not suit them; they created a theory that 'the blue sky of violence' would be succeeded by 'the yellow sky of justice'. In fact the sky turned red from the reflection of spilled blood. In the period of troubles that succeeded the uprising, the population of China fell from 50 million to 7.5 million. It would be frivolous to blame Taoist propaganda alone for all the calamities, since the overwhelming majority of those involved in the events were foreign to any philosophical conceptions. From my angle it is only important to note the existence of a futuristic perception of the world and its activation with the decline of the backward-looking view, dislodged, as it were, from the life of the people. It is not by chance that the third century A.D. is considered the age dividing ancient China from mediaeval. A new accumulation of values, both ideological and material, began in the sixth century A.D. under the Sui dynasty, and took shape in a backward-looking trend in the seventh century during the Tang dynasty. N.I. Konrad called this phenomenon the Chinese Renaissance, when under the slogan of 'return to the ancient' a new, original cul-

ture was created that was opposed to moral decay and to the brutality of the soldier and nomad kingdoms of the epoch called the 'Five Barbarians'.⁹

One might conclude that a futuristic perception of time is encountered so rarely that it is an anomaly. That is wrong; it is as regular as the two others, but operates in an ethnic association so destructively and disastrously that either the ethnos as a whole or the 'dreamers' die, or they declare their dream fulfilled and become actualists, i.e. begin to live like everyone else. The futuristic perception of the world is dangerous for those around only in pure forms and high concentrations. Mixed with others it is capable of arousing sympathy. Johann of Leyden in Münster, for example, knew how to fan a high pitch of passions, and the bloodshed inevitably associated with that phenomenon. But contemporary Baptists are narrow-minded, and as such are closer (in the system of classification I have adopted) to bigoted Catholics, Protestants, and atheists than to their own ideological and spiritual forebears. In other words profession of an idea does not determine attitude to time and is not linked with it. The pattern of 'futurism' is that the presence of people of this stamp starts a process of ethnic disintegration; and since these processes are observed in all the periods we have studied, the disappearance of ethnoi is obviously not an accident or a matter of chance, any more than the appearance of new ones is. Both are parts of one and the same dialectical process, ethnogenesis; and if, as people, we may sympathize with some one mental attitude or mentality, as scientists we must simply define the relation and vectors of the constituent magnitudes in the general trend of the movement being studied.

Past-worship, actualism, and futurism reflect three stages of the ethnic dynamics but there must be, in addition, and actually is, a frame of reference of the category of time corresponding to the static state of the ethnos. It consists in the very ignoring of time that I have already described. Time does not interest people of this stamp because they derive no benefit from contemplating it for the activity that nourishes them. There are such people (that I called narrow-minded or Philistines above) in all stages, but they are hardly noticed when other categories exist. When all their rivals disappear with the triumph of 'futurism' or 'obscurantism', indestructible mediocrities emerge from the cracks and fissures, historical time comes to a halt, and the land lies fallow.

So I have closed all the lines of my analysis, and obtained confirmation of a hypothesis of a four-member construction of ethnic becoming. That is not a chance coincidence and not an arbitrary con-

struct, but a reflection of the essence of the process of ethnic disintegration. But if my analysis has exhausted the theme, then not only ethnology but also ethnoi themselves would long ago not have been, because they would all have disintegrated with the passing of historical time. Obviously there are creative processes of intraethnic evolution, in addition to destructive ones, thanks to which new ethnic associations arise. The ethnic history of mankind therefore does not cease, and will not, as long as there are people on Earth. Because an ethnos is not an arithmetical sum of human units but a system, a concept that must be unravelled in detail.

Ethnos as a System

'System' in a popular explanation. A well-known example of a social system is the family living in one home. The elements of the system are the members of the family and the objects of their way of life. These include the husband, wife, mother-in-law, son, daughter, house, well, and cat. They constitute a household so long as the spouses are not divorced or separated, the children have not broken away, the mother-in-law has not quarrelled with the son-in-law, the well has not become covered with scum, and the cat has not had kittens in the loft. If they stay in the house after that then, whether a water main is laid or the well is cleaned, it will not be a family, but a settled plot, i.e. all the elements of animate and inanimate nature will remain in place, but the system of the family will disappear. If, on the contrary, the mother-in-law dies, the house is rebuilt, the cat runs away, the favourite son leaves to study, and so on, the family will be preserved in spite of the changes in the number of elements. That means that the objects are not the really substantial, operative element of the system, but rather the connections are, although they have neither mass, charge, nor temperature.

This inner link between separate people with mutual dissimilarity is a real manifestation of a systems link and cannot be defined by any other indicators.

The relations in a system can be both positive and negative, some of the links of the subsystem being able to change sign during an individual's life. Let us continue my example. The relation of a newborn boy with elders has a certain tendency and 'weight'.¹⁰ They take care of him, bring him up, and teach him. On becoming an adult and the father of a family, he does not, however, break his relations with his elders. But the sign of the connection changes to its

opposite; he cares for his parents and teaches his children. Finally, having become an old man, he again requires care and attention. This pattern indicates that no system is static but is in mobile equilibrium (homeostasis), or in motion from a push of some kind whose impulse lies outside the system. It is not excluded, of course, that this impulse is limited for a system of higher rank, but the mechanism of influence is not altered.

The family is a graphic example of a system. But more complicated systems like, for example, an ethnos, social organism, species, geobiocoenosis, are governed by the same regularity, even when allowance is made for their being constructed on a hierarchical principle, in which the subsystems form a systems entity (supersystem), and the supersystems a hypersystem, and so on. The existence of universal, general connections that create dynamic stereotypes is thus more or less stable, but never eternal.

The degree of stability of an ethnos, as a system, is thus determined not by its mass, i.e. the size of the population, and the accuracy of its copying of ancestors, but by a mean statistical set of connections of various weights and signs. A sharp departure beyond definite limits entails either death or rapid development. The elasticity of an ethnos is created by that, which makes it possible to absorb and dampen external influences and even sometimes regenerate itself, because a multi-link system makes up for the damage from the reorganization of connections.

Let me pass from this popular explanation to scientific definitions, i.e. cybernetics and systemology on the scale that we shall need them.

'System' in ethnology. The American scientist Norbert Wiener defined cybernetics as the science of control and communication. The merit of cybernetics is the method of investigating complex systems, since it gives no advantages in the study of simple systems. The object of study of cybernetics is the modes of behaviour of an object. It does not ask 'what is it?' but rather 'what does it do?'. Cybernetics is concerned with all forms of behaviour, in so far as they are regular, or determined, or reproducible. Materiality is of no significance for it, nor observance or non-observance of the ordinary laws of physics.

The theses cited indicate that for an ethnologist, who interprets the essence of the phenomenon of ethnos and recognizes laws in order to tie his own observations up with them, absolute confidence in the methods of cybernetics is counter-indicated. Application of cybernetic methods can serve as a corrective for the extrapolation

of empirical generalizations, but no more. Therefore it is not the ideas of Wiener but those of Bertalanffy, who combined physical chemistry and thermodynamics with cybernetics, that will usefully underlie the methods of systems study of an ethnos.

According to Bertalanffy's approach,¹¹ a system is a complex of mutually interacting elements, i.e. the primary elements of information are the connections between facts and not the separate facts themselves. According to A.A. Malinovsky,

a system is built up from units whose grouping has independent significance, and from links, blocks, and subsystems, each of which is a unit of a lower order that provides the hierarchical principle that makes it possible to carry on investigation at a given level.¹²

Starting from that principle we have the right to treat an ethnos as a system of social and natural units and the elements inherent in them. An ethnos is not just a crowd of people similar in certain features to one another, but a system of individuals different in tastes and capabilities, and of the products of their activity, traditions, the geographical environment, ethnic surroundings, and tendencies to increase or diminish. The trend of development is particularly important because

the general, for all cases of sets, is the property of elements to possess all forms of activity that lead to the formation of static or dynamic structures.¹³

The application of this approach to processes of ethnogenesis is also linked with the solution of the problem of historicism, since all the observed facts are built up into a dynamic system of historical development. It only remains for me to analyze that part of World History that is directly connected with my theme.

We can thus define the real existence of an ethnic entity as the dynamic existence of a system that includes not only people but also elements of landscape, cultural tradition, and relations with neighbours.¹⁴ These are not only the biological system, and not only the social one, because analogues of the biological and the social levels are not justified. The original charge of energy in such a system is gradually expended, and entropy continually increases. A living substance or system must therefore constantly remove the accumulating entropy, exchanging energy and entropy with the environment. This exchange is controlled by regulating systems that employ the stocks of information transmitted by inheritance. In our case the role of regulating systems is played by tradition, which interacts equally with the social and natural form of the motion of

matter. Transmission of experience to progeny is observed in most warm-blooded animals. But the existence of tools, speech, and writing separates man from other mammals, and an ethnos is a form of collective being inherent only in man.

Levels and types of ethnic systems. The approach I have adopted allows me to substitute ethnic systematics for ethnic classification. A classification can be made according to some arbitrary attribute (language, race, religion, kind of job, citizenship). In any case it will be an arbitrary division not inherent in the nature of things. But systematics reflects precisely the latter, studying humanity and technique and domestic animals as a definite object. The biggest unit, after mankind as a whole (as an amorphous anthroposphere, one of the envelopes of Earth), is the superethnos, i.e. a group of ethnoi that has arisen at the same time in a region and which manifests itself in history as a mosaic unity of ethnoi, i.e. of directly observable taxa. They, in turn, are divided into subethnoi, i.e. into units that exist only because they are part of the unity of the ethnos; without the ethnos they fall to pieces and die.

Membership of a category of taxonomy is determined not by the absolute identity of the individuals, but by how far they are similar in a certain aspect at a given level. At the level of the superethnos (let us take the Middle Ages as an example), Muslims (Arabs, Persians, Turkomans, Berbers) were closer to one another than to members of the West-Christian superethnos (the 'Franks' as all the Catholics of Western Europe were called). On the other hand, the French, Castilians, and Scots who were part of the general superethnos were closer to one another than to members of other superethnoi (Muslim, Orthodox, etc.). At ethnos level the French were closer to one another than to the English. That did not prevent the Burgundians from supporting Henry V and taking Joan of Arc prisoner, although they understood that they were going against their own. In any case one must not reduce the whole variety of visible history to awareness of ethnic unity, which is only *sometimes* the main factor determining a person's behaviour. But there is *always* such awareness, along with other factors, which provides grounds for classing it as the nature of man, as an invariant, rather than among variants of the historical process. In other words, however mosaic an ethnos is, and however varied its structure, it is a unity at a given level.

It is very interesting that historians are already groping for the possibility of such an approach. They involuntarily group ethnoi

into constructs that they call either 'cultures' or 'civilizations' or 'worlds'. For the twelfth and thirteenth centuries, for example, we find real sense in concepts that were then perceived as actually existing entities. Western Europe, for example, which was under the ideological suzerainty of the Pope and the formal, but never in fact realized suzerainty of the German Emperor, called itself the 'Christian world'. The West Europeans thereby counterposed themselves not only to the Muslims they were fighting in Spain and Palestine, but also to the Orthodox Greeks and Russians, and also, surprisingly, to the Irish and Welsh Celts. Quite obviously, it was not a religious community that was understood by that, but a systems unity that was given its name by an arbitrarily accepted indicator.

The 'World of Islam' equally counterposed itself to the Greeks and Franks, and the pagan Turks, but from the angle of religion it was not a unity. The doctrines of the Shi'ites (theists), Karmathians (atheists), and of the Sufis (pantheists) had very little resemblance to each other, or to the orthodox doctrine of Islam (Sunnism). The Christian Europeans, too, were by no means friendly with one another, but when clashing with Muslims or pagans, they immediately found a common language and ways of compromise. That meant, for example, that Venetians could fight Genoese, but only until Arabs or Berber Muslims appeared; then the former enemies threw themselves against the common enemy.

We know from history that fierce wars were often waged between close relatives. But they differed radically from the wars at the level of major systems. In the latter case the enemy was regarded as someone foreign, interfering and liable to destruction, while personal motives (anger, hatred, envy, etc.) were not a reason for the brutality exhibited. The further systems are from one another, the more cold-blooded the mutual extermination is, being converted into a kind of dangerous hunt. Can one really hate a tiger or a crocodile?

On the contrary, the struggle within a system has the aim not of exterminating the enemy but of victory over him, since the system cannot exist without its component parts. The leader of the Florentine Ghibellines, Farinata degli Uberti, for instance, helped the enemies of his city win, but did not permit the destruction of Florence. He declared that he was fighting the city in order to live in it. He lived there until his death, after the Arbia ran red with the blood of his enemies the Florentine Guelphs.

But that was still nothing. The Venetians dealt far more severely with Alberigo, the brother of the famous Ghibelline Eccelino da Romano. When he yielded up his castle near Treviso in 1260, six of his sons were killed before his eyes, and then he himself was beheaded, and his wife and two daughters burned alive on the square of Treviso. Why were such senseless cruelties inflicted?

To understand that situation one has to grasp that 'Guelphs and Ghibellines were algebraic signs that could conceal meaning'.¹⁵ It is considered that the Ghibellines were feudalists and the Guelphs burgesses (burghers), but a number of towns were half-and-half for the Ghibellines, and some Guelphs became Ghibellines, and vice versa, and it happened that the two parties acted together against the Arabs or Greeks. Such big urban republics as Genoa and Venice passed repeatedly from one camp to the other, guided only by political considerations. So why did blood flow?

The means of maintaining unity of a system depends on the epoch, or rather on the phase of ethnogenesis. In young systems the elements make very intense contact, passionate so to say, which causes clashes. The bloody discords often have neither ideological nor class sense, occurring within the limits of one social stratum, like Wars of the Roses in England, or the war of the Armagnacs and Burgundians in France. But these intestine wars maintain the unity of the ethnic system and state better than when the population is apathetic, when it would seem easier to live, but the ethnoi break up and disappear as entities.

Ethnic systems are often not equivalent to state formations. One ethnos may live in different states or several in one. So in what sense can we treat them as systems?

It is acceptable to divide systems into two ideal types: rigid and corpuscular, or discrete. In rigid systems all the parts (elements) are so fitted to one another that their simultaneous existence is necessary for normal functioning. In discrete systems the elements interact freely and easily replace analogous ones, without the system ceasing to work; and it is even possible to drop some elements with the next renewal. If that does not happen there is a simplification of the system that may go so far as to destroy it.

Another division of systems is possible—into open ones constantly receiving energy and exchanging positive and negative entropy with the environment, and closed ones that use up the original charge until their potential is balanced with that of the environment. Four variants are possible when these two characteristics are compared: (1) rigid open; (2) rigid closed; (3) discrete open; (4) discrete closed. The division is arbitrary, because any operating

system combines features of different types, but since it is close to one pole or the other, the division is justified in practice, because it helps classify systems by the degree of subordination of the elements.

When we study history, both constitutional, social, and cultural, and ethnic, we come up against all the gradations of systems of the types described, with the exception of the extremes, i.e. only rigid or only discrete, because neither the one nor the other is viable. Rigid systems cannot be self-restorative when they break down, while discrete ones lack the capacity to withstand blows from outside. We therefore encounter systems in practice with various degrees of rigidity, which is the higher the more human labour is involved in it, and the lower the more creation of the system is initiated by natural processes that constantly transform the elements composing it. The limit is the opposition of the technosphere and the biosphere.

But where is the boundary of the biosphere and the technosphere, if the human organism itself is part of nature? Obviously the boundary of the socio-technosphere and the biosphere runs within human bodies as well as outside them. But the difference does not disappear because of that. On the contrary, we are seeking a real element of the interaction of the social and biological here. It is that independent, and quite well-known phenomenon of nature, viz., the *ethnos*.

Ideally, an *ethnos* is a discrete system but so as not to be annihilated by neighbours, it immediately develops social forms that are auxiliary rigid systems: the authority of the elders in the clan, for example, the chief in the hunt or war, obligations in regard to the family, and finally, the formation of a state. The rigid systems are thus socio-political formations like the state, tribal unions, clans, bodyguards, etc. The coincidence of systems of both types, i.e. of *ethnos* and state or tribal union, is not obligatory, although it seems natural. Recall the great empires of antiquity that united diverse *ethnoi* or the mediaeval feudal splintering of *ethnoi*. A propensity to combine is as natural as one to coincide. The systems of both types are dynamic, i.e. they rise and fall in historical time. Homeostatic ethnic systems in which changes are connected only with external effects seem to be the exception. But one must not forget that homeostasis arises only after intense development, when the forces creating and driving the system run out. Statics should therefore be perceived as slow inertial motion with a limit — zero — that is not reached in practice.

Subethnoi

The structure of an ethnos. Its structure—an inseparable feature of an ethnos—is always more or less complex, but it is this complexity that gives it the stability by which it has a chance to survive centuries of confusion, troubles, and peaceful wasting away. The principle of ethnic structure is, one may say, a hierarchical subordination of subethnic groups (the latter understood as taxonomic units within the ethnos, as a visible whole, and not disrupting its unity). At first glance this thesis contradicts my proposition about the existence of an ethnos as an elementary entity, but remember that even a molecule of matter consists of atoms, and an atom of elementary particles, which does not ablate statements about the entity at one level or another (molecular or atomic, or even subatomic). The whole thing is characteristic of structural connections. Let me explain this from an example.

A Karelian from the Tver Province called himself a Karelian in his village but on going to study in Moscow a Russian, because it made sense in the village to counterpose Karelians to Russians, but in the city it did not, since the differences in way of life and culture were so insignificant as not to be visible. But if he were a Tatar, rather than a Karelian, he would go on calling himself a Tatar because the past religious difference deepened his ethnographic dissimilarity from Russians. But a Tatar living in Western Europe or China would be considered a Russian, and would himself agree with that; in New Guinea, however, he would be seen as a European, only not of the tribe of the English or Dutch. This example is very important for ethnic diagnosis, and so for demographic statistics and ethnographic maps. For when such maps are being compiled it is absolutely necessary to agree on the order and degree of approximation, otherwise it will be impossible to distinguish the subethnoi that exist as elements of the structure of an ethnos, from current ethnoi.

Now let me touch on the subordination of ethnoi. The French, for example, a clear example of a monolithic ethnos, include, as I have already said, Breton Celts, Gascons of Basque origin, Alsatians, descendants of Alemanni, and Provençals, an independent people of the Romance group. In the ninth century A.D., when ethnic names were first recorded in documents, the French, all the peoples named above, and others, too—Burgundians, Normans, Aquitaines, Savoyards—still did not constitute a single ethnos, and only after a thousand-year process of ethnogenesis was the ethnos

formed that we call the French. The merging, however, did not cause a levelling of local customs, rituals, etc. They were maintained as provincial peculiarities that did not disrupt the ethnic wholeness of the French.

We see the results of ethnic integration particularly clearly in France, because the course of events during the Reformation led to the French Huguenots being forced to quit their homeland in the seventeenth century. In saving their lives, they lost their former ethnic affiliation and became German nobles, Dutch burghers, and a large number the Boers who colonized South Africa. The French ethnos shed them, like a superfluous element of the structure, diverse even without it. France, as a socio-political entity, however, was not weakened, but on the contrary consolidated. The fields and orchards abandoned by the zealous Huguenots passed to indifferent people, who restored an economy in the eighteenth century that no longer suffered from internal wars. The ethnic monolithism arising enabled Napoleon to mobilize the population and create a very numerous and obedient army, after whose defeat France did not break up, in spite of all the survivals of provincial separatism.

Self-regulation of an ethnos. It may seem strange that I ascribe a capacity for self-regulation to an ethnos. But an ethnos is dynamic in historical development and consequently, like any long-lasting process, finds solutions within its power to maintain its existence. Others are cut off by selection and die out. All living systems resist extinction, i.e. are anti-entropic, and adapt to external conditions in so far as that is possible. But as soon as some complexity of structure raises the resistance of an ethnos to external blows, it is not surprising that where it was not sufficiently mosaic at birth, as for example in Great Russia in the fourteenth and fifteenth centuries, it begins itself to throw up subethnic formations, that sometimes take shape as estates.¹⁶ On the southern borders Cossacks emerged, in the north Pomors.¹⁷ Subsequently they were augmented by 'prospectors' (at first glance, simply a kind of job)¹⁸; peasants followed after them, mixing with the aborigines of Siberia and forming a subethnos of Siberians. In the course of history these subethnic groups dissolved into the main mass of the ethnos, but at the same time new ones were thrown up.

It is very easy to distinguish subethnoi, because the ethnography of the end of the nineteenth century worked precisely at that level. Russian ethnographers studied everyday customs, i.e. a fixed stereotype of the behaviour of a group of population that differed sharply from those of the capitals (Moscow and St. Petersburg).

They studied the life of the Olonets peasants (in Karelia), for example, but not of the professors of the colleges in St. Petersburg.

In short, subethnoi are obvious because, on the one hand, they are within an ethnos and, on the other, their bearers differ from all others in manners, mode of expressing feelings, and so on. They arise through different causes, coincide sometimes with estates, but never with classes, and disperse relatively painlessly, giving way to others, outwardly dissimilar, but with the same functions and fates. The purpose of these subethnic formations is to support ethnic unity by way of internal, non-antagonist resistance. This complexity is obviously an organic detail of the mechanism of the ethnic system and as such arises in the very process of the formation of an ethnos or of ethnogenesis. When an ethnic system is simplified, in the phase of decay, the number of subethnoi is reduced to one. That marks the persistent (residual) state of the ethnos. But what is the mechanism of the rise of subethnoi? To answer that we have to go to a lower order in which there are taxonomic units that I divide into two sections: consortia and convicinities. Small tribes, clans, and the already mentioned corporations, local groups, and other associations of people are put into these sections.

Consortia and convicinities. Let us agree on terms. I call groups of people united by a common historical fate consortia. They include 'circles', cooperatives and workers' guilds, sects, bands, and similar unstable associations. They usually break up, but sometimes last for several generations. Then they become convicinities, i.e. groups of people with both a way of life of the same character and family connections. They are not very resistant. They are eaten away by exogamy and reshuffled by succession, i.e. by sharp changes of historical surroundings. Undamaged convicinities grow into subethnoi. Such were the Russian prospectors mentioned above, consortia of desperate, foolhardy explorers who gave rise to a generation of staunch Siberians; and Old Believers. The first English colonies in America were founded by consortia and were converted into convicinities. New England was founded by Puritans, Massachusetts by Baptists, Pennsylvania by Quakers, Maryland by Catholics, Virginia by Royalists, Georgia by supporters of the House of Hanover. Consortia sailed from England that were not reconciled either to Cromwell or to the Stuarts, and on the new soil, where the old disputes were not pressing, they became convicinities that opposed themselves to new neighbours — Indians and French.

The Russian prospectors and Old Believers remained part of their ethnos, but the descendants of the Spanish conquistadores

and English Puritans formed special ethnoi in America; so this level can be considered the limit of ethnic divergence. And, one must note, the oldest tribes were obviously formed in former times by this means. An original consortium of energetic people is converted into an ethnos in conditions of isolation, which in early epochs we call a tribe.

Ethnology finishes with consortia at the ordinal level, but the principle of hierarchical subordination can operate even further if necessary. At a lower order we get the single individual, connected with his surroundings. That can be useful for the biography of great men. Going down further we encounter not the full biography of a person but an episode of his life, for example, a crime committed that should be disclosed; and even lower, chance emotion, which does not entail major consequences. But we have to remember that this endless dividing, which is in the nature of things, does not remove the need to find a unity at a given level, important for tackling the task posed.

Superethnoi

The reality of a superethnos: the Franks. I call a superethnos a group of ethnoi arising at the same time in a definite region connected together by economic, ideological, and political contacts that by no means exclude military conflicts among them. But, in contrast to clashes at superethnic level, when wars are waged to extermination or enslavement (for example, the contact of Europeans with the aborigines of America in the sixteenth to nineteenth centuries), the wars within a superethnos lead only to achievement of temporary domination (for example, the Guelphs and Ghibellines in mediaeval Europe, or the internecine wars of the Old Russian dukes), with a striving for compromise. Like an ethnos, a superethnos opposes itself to all other superethnoi, in the person of its members, but unlike an ethnos a superethnos is incapable of divergence. I ask you to accept this thesis temporarily without proof, and promise to present such at the end of the book.

At first glance this seems strange because it is incomprehensible where superethnoi come from. Their rise is evidently different in character from that of ethnoi, and furthermore of subethnic entities. If so, however, then we must presume that the riddle of the origin of ethnoi has not been solved precisely because its solution lies at a higher order, and consequently that the phenomenon of ethnos, some one or another, seen and noticed by us, is only a vari-

ant of the superethnos to which it belongs as an element of the mosaic systems entity, like a column or caryatid forms part of the whole of a palace although the caryatid can be looked at from beside it, while the palace is only visible as a whole from a great distance. The palace, however, will continue to function without a caryatid, but a broken statue will be converted at best into a museum exhibit and at worst into builders' debris. Let me explain this with examples from history.

A superethnic entity is no less real than a subethnic one. The French ethnos was already part, in the early Middle Ages, of an entity called Christianity, which included the Catholic countries of Europe, a part of whose population were Arians (the Burgundians) or pagans (the Frisians). But such details bothered no one at the time. The territory united by the Carolingians was peopled by two large ethnic groups: the German-speaking Teutons and Latin-speaking Walloons. Under the grandsons of Charlemagne these ethnoi forced their rulers to break the iron band of the Empire and achieved their aim at the battle of Fontenoy (A.D. 841): Charles the Bald and Louis the German swore in A.D. 842 in Strasbourg to stand by the division of the empire by nations.

But that was a first approximation at division. Brittany, Aquitaine, and Provence separated off from the kingdom of the West Franks, and tiny France was located between the Meuse and the Loire. This 'territorial revolution'¹⁹ was completed by the legitimate Teutonic dynasty of the Carolingians being overthrown in Paris itself, where Eudes, son of Rodbert of Anjou, ascended the throne in 895 A.D. The Carolingians fought for a hundred years against the disintegration of their country, but the ethnoi that arose from the broad spectrum of mixing refused to submit to them. Consequently there was the 'feudal revolution', which finished in the tenth century. Western Europe broke up politically, but continued to figure as a superethnic unity opposed to the Muslims (Arabs) and Orthodox (Greeks), and Irish and pagans (Slavs and Norsemen). Subsequently it expanded, having absorbed, through conversion to Catholicism, the Anglo-Saxons, and then the Western Slavs, Scandinavians, and Hungarians. Ethnic mosaicism did not prevent the development of a superethnos.

The origin of a superethnos: Byzantium. A second example. In the Mediterranean there existed in antiquity a single Hellenistic culture that drew Latium and the Phoenician cities into itself during development. Ethnically it resembled the West European, because the main Hellenic nucleus did not comprehend all the variants of

the diverse Hellenistic culture. Rome, Carthage, and Pella had their own local peculiarities and were independent ethnai, but in the superethnic sense were part of the broad circle of Hellenistic culture. That is not new, incidentally, but it is important to me as a starting point. The Roman state encouraged ethnic levelling, but Greek's equality of rights with Latin led to almost the whole population of the Mediterranean merging into one *ethnos*.

But in the first century A.D. new people appeared in the Roman Empire, unlike any of their neighbours, who formed a new entity in the next two centuries. They already counterposed themselves at the beginning of their advent to 'pagans', i.e. to all other people, and, in fact, were singled out from their number, of course, by the character of their behaviour and not by anatomical or physiological traits. They treated each other differently, thought differently, and set themselves aims in life that seemed senseless to their contemporaries, in striving for bliss beyond the grave. Asceticism was foreign to the Hellenistic world; the new people created the Thebaid. The Hellenes and Romans had already, for several centuries, considered their gods literary figures, maintaining the cult as a public tradition but guided in ordinary life by many omens. The new preachers and neophytes considered with complete conviction that the other world was reality, and prepared themselves for life on the other side. While professing loyalty to the Roman government, they refused to recognize its divine nature, and would not bow to the statues of the emperors, although that often cost them their lives. These nuances of behaviour did not break the structures of society, but the new people dropped out of the ethnic unity and evoked the burning hatred of the urban poor, who demanded their annihilation, proceeding from the principle of denial of the right to be different.

It is wrong to think that the cause of the arising hostility was the difference in convictions, because there were no stable and distinct convictions among the uneducated pagans at that time, while they were diverse among the people of the new mentality. But why did the Hellenes and Romans not quarrel with Mithra, Isis, Cybele, and Helios, making an exception only for Christ? What put Christ outside must obviously have been not an ideological or political attribute, but an ethnological one, i.e. a behavioural one that was really new and unaccustomed for Hellenistic culture.

As we know, the new entity was victorious in spite of vast losses. The Gnostics disappeared, and Manichaeans were scattered; the Marcionites (subsequently Bogomils) were confined to a narrow community; and only the Christian Church proved viable and gave

rise to an entity that had no name of its own. I shall conventionally call it Byzantine, or Orthodox Christian. An ethnos was formed from the Early Christian community in the fifth century A.D. throughout the Roman Empire, that called itself by the old word 'Romaic' (Gr. *Rhōmē*). From the fifth to the tenth centuries A.D. Bulgarians, Serbs, Magyars, Czechs, Russians, and Alans were converted to Orthodoxy, and then a superethnic cultural entity of the Orthodox world was created, which was broken up in the thirteenth century by blows from outside — by 'Franks',²⁰ 'Turks', and Mongols. In the fourteenth century the Orthodox tradition, like the Orthodox culture, revived in connection with the rise of the Great Russian people. But one cannot consider Muscovy the cultural periphery of Byzantium, because strong local traditions made an independent entity out of Rus. What is important is that the currents that deviated from the Oecumenical Church in the fifth century A.D. (Nestorians and Monophysites) continued, in spite of their having been anathematized by Oecumenical Councils, to feel their community with the Orthodox churches, while the simple schism of 1054, when the disputing parties did not proclaim their opponents heretics, formed a break in the single superethnic entity that still exists. Catholicism became the new structural system of the 'Christian world'. The area of 'Catholic' Europe differed from the 'Byzantine' in the character of the behaviour of the people inhabiting them. In Western Europe the mediaeval *nationes* arose, from which grew modern nations, chivalry, city communes, and everything that distinguishes the European superethnos from the other superethnoi of the world.

But even after the schism of 1054 the dogma of Christianity remained as before, which means that it was not a matter of that and the history of religion, like a sensitive indicator, only reflects the deep processes of both social and ethnic history.

The breakdown of a superethnos: the Arabs of the seventh to tenth centuries A.D. The Arabs are an ancient people, so that at the beginning of our era their old feeling of ethnic unity had been lost. The most educated Arabs lived either in Byzantine Syria, or in Iranian Iraq, taking part in the political and cultural life of those empires.

On the origin of the Arabs there are only the legends in the Book of Genesis, but it has been historically recorded that for nearly a thousand years isolated tribes of Bedouins and gardeners, simultaneously engaged in trade, lived in Arabia. Their life and tribal-clan system were predominantly determined by a natural economy

and consequently by the terrain of the country they inhabited. No tendencies toward unification arose. The fighting capacity of the Arabs was at a very low level, so that up to the seventh century A.D. Arabia was a field of rivalry of neighbouring countries, viz., the Roman Empire, Parthian Sassanid Iran, and Abyssinia (the Aksum Empire). In Arabia itself the most active and resistant population was the Jewish communities of Hejaz and Yemen.

In the sixth century A.D. there was a sudden upsurge of poetry throughout Arabia, which needs to be regarded as a *modus* of activation. Must one prove that it is impossible to compose good verses without the impulse of passion? In the seventh century Muhammed came forward with a preaching of a strict monotheism and, having formed a small group of fanatical, resolute, and terribly brave followers around him, as a first act wiped out the poets as his rivals. The members of the Muslim community broke up the old clan, family connections, forming a new, special collective that, like the Byzantine, had a confessional dominating idea and an ethnogenetic nature, because Muhammed declared that a Muslim could not be a slave, and accepted into his commune those slaves who pronounced the formula of Islam. An incubation period of accumulation of drive also preceded propaganda for the new faith.

The consortium created was converted during the lifetime of Muhammed and Abu-Bekr into a subethnos. The Muslim subethnos, having grown from a score or so of people to several tens of thousands, conquered all Arabia and imposed a dogma of monotheism on the Arabs. The indifferent Meccan merchants and Bedouins of the deserts preferred hypocritical conversion to Islam to death or slavery. So a new ethnos was created with a changed stereotype of behaviour but with the old name for itself — Arabs.

The second Caliph Omar, employing the forces conquered and outwardly converted to Islam, conquered Syria, Egypt, and Persia, but already, under the third Caliph Osman, the pseudo-converts penetrated the highest posts in the new state and utilized the religious impulse of the original collective for purposes of personal enrichment. Zealots of the faith murdered Osman, but that provoked an explosion of indignation among those who were not fanatics, and an internecine struggle began between the friend of the Prophet Ali, and the son of his enemy Moawiyah, in which the 'pseudo-Muslims' were victorious. But they did not alter the policy and official ideology and continued to conquer under the slogans of Islam. The power of the descendants of Moawiyah, the Ommiads, absorbed not only Arabic, but also Syrian, Iranian, Sogdian, Span-

ish, African, Caucasian, and many other elements stretching from the Atlantic Ocean to the Indus.

The Arabs imposed their language and spiritual culture (Islam) on the ethnically varied population of the Caliphate. The majority of the conquered people became Arabic-speaking, and where they retained their own language, as in Persia, more than half of the words in the literary language are Arabic.

But already in the tenth century the Caliphate had broken up into separate regions that coincided with tribal areas. The Idrisides (A.D. 789-926), the Rustamids (A.D. 777-909), and the Zirids (972-1152) were supported by Berbers, the Buyid dynasty (932-1062) by Gilam and Dailamite mountaineers; the Samanids (A.D. 819-999) by Tajiks, and so on. Even the Arabs themselves were divided. The Spanish Arabs raised the green banner of the Ommyads, the Iraqis the black banner of the Abassids, the Egyptians the white banner of the Fatimids, and the Bahrein tribes of Bedouins created first the community and then the state of the Karmathians, and they all in fact separated into different ethnoi hostile to one another.

In short, the same thing that happened with the empire of Charlemagne occurred with the Caliphate in the ninth and tenth centuries A.D. The living forces of the ethnoi broke the iron band of Empire, both Christian and Muslim, like grass breaks up asphalt. But the political partitioning did not in either case break the super-ethnic unity, which was reflected in a certain similarity of some elements of the Arabic and Latin culture and literary language. The Muslim superethnos proved much more viable than the Arabic ethnos that gave rise to it. The idea of the Caliphate had already been taken over in the eleventh and twelfth centuries by the Seljuk Turks, and in the thirteenth century by Polovtsy and Sudanese Negroes bought in the slave markets and enrolled in the army. The inertia of the system created by Muhammed's comrades-in-arms proved tremendous.

Let me now ask whether the religious conception can be considered dominant in the process described. As an external phenomenon it undoubtedly can. But inwardly, in content, it is a more complicated matter. Karmathianism differs in its philosophical conceptions much more from Islam than Christianity does, or even Judaism;²¹ nevertheless it not only comes within the superethnic construction of Muslim culture but also within the Arabic ethnos proper. Turkish mercenaries and Moroccan cut-throats were least of all interested in religion, nevertheless only they supported Sunnite orthodoxy with their sabres in the eleventh century. Remember, Muhammed was preceded by a pleiad of Arab poets (pagans,

Christians, Jews) so that the flowering of poetry was the initial link in the process described, no less than the development of intermediate trade, the hunting of Negroes for sale into slavery, and the banditry of tribal leaders.

But for all that the Islam conceived by Muhammed was dominant in forming the Arabic ethnos (and in the superethnic sense of all Muslim culture); and for it the preceding period of the flowering of Arab poetry proved suitable soil. Islam as a symbol became the object of fanatical self-assertion and a means of introducing uniformity. The appearance of various heresies and modifications of religious-ideological content usual during the rapid onslaught of a new religious system (as a kind of inevitable antitheses) only stimulated the rapidity and fury of the course of the main process. Furthermore, a varied intellectual life developed both within the Arab ethnos proper and in the superethnic culture, which led to a flowering of science, art, and unique forms of everyday life. The process is an example of the forming of a superethnos outwardly characterized by a religious-ideological dominant. Such entities have long been known to the social sciences, and are sometimes called 'cultural types' and sometimes 'civilizations'.

In the tenth century A.D. the energy of the Arabo-Muslim ethnos gave out despite the fact that the economy flourished, social relations were normalized, and philosophy, literature, geography, and medicine yielded a maximum number of masterpieces precisely then. The Arabs were converted from warriors into poets, scholars, and diplomats. They created a brilliant style in architecture, built cities with bazaars and schools, laid irrigation works and grew beautiful gardens that provided food for a growing population. But the Arabs forgot how to defend themselves against enemies. In place of the era of conquests a time of losses set in.

The French Normans took Sicily from the Muslims. Asturian mountaineers captured Central Spain and converted it into the 'land of castles'—Castile. The Byzantines took back Syria, except Damascus. The Georgians liberated Tiflis from an Arab garrison. To save themselves the Arabs had to turn to Turkomans and Berbers. But that helped. In the eleventh century the Almoravids drove the Spaniards north and the Seljuks subdued Armenia and Asia Minor. But these newcomers did not defend the ethnos of the Arabs,²² for whom they did not care tuppence, but the superethnos, the 'world of Islam', because the latter had become the cultural dominant for them. The Central Asian Turks, Sudanese Negroes, and savage Kurds, on becoming part of the structure of the disintegrating Caliphate, assimilated the morals, customs, views, etc., ac-

cepted in it, and became perpetrators of the cause of the community created by Muhammed. It was these people who stopped the onslaught of the Crusaders.

But for all that the culture remained, products of human hands that had no self-development and were free only to collapse and be ruined. The destruction took place slowly, and the fascination of this culture embraced ever newer regions in Africa, India, and the Malay archipelago, and also China. There it still exists, having outlived the rise of the ethnos that created it by a thousand years.

Having taken in such a large quantity of elements foreign to it in the tenth to twelfth centuries, elements introduced by the ethnoi incorporated, this culture changed its look and generated new forms, fanciful to the point of monstrosity. The Muslims ethnically foreign to the Arabs became Shi'ites, Ismailites, Sufis, or professors of doctrines outwardly orthodox but essentially original and far from the original attitude to the world of Muhammed's companions and of the first Caliphs. And since ethnic disagreements and differences were clothed in confessional forms at that time, we can – if we take the reverse course (from culture to ethnogenesis) – discover and characterize the ethnic contacts of the 'World of Islam'. I shall devote a special excursus to this intricate but fascinating problem, in which I shall master with readers several more techniques of the ethnological method.

The Algorithm of Ethnogenesis*

Ethnic relicts. Ethnic history can number more than 20 superethnoi that have disappeared in historical time and been replaced by ones now existing. The job is still to describe the mechanism of the disappearance of superethnoi, but I shall speak specially of their origin and spread. Let me note, as an important detail, that islets often remain in the place of a once vast superethnos broken by history that have survived the epoch of its flourishing and decline. The Basques, Albanians, and several Caucasian ethnoi, and the interesting and very stable ethnos of the Iroquois of North America, can serve as examples of such small ethnoi. Unlike the majority of the extinct or assimilated tribes of North and Central America, the Iroquois have maintained their numbers (20 000), their language, and their contrast to all non-Iroquois. They have, it is true, changed

* I use algorithm here as description of the means of tackling the task posed.

their life structure and have been converted from warriors into 'museum pieces'.

There are quite a few relict ethnol, some of them dying out, and some being assimilated by other ethnol, but some, like the Iroquois, maintaining their self-awareness, more or less stable numbers, and the territory they occupy. These ethnol I call persistent, i.e. that have outlived themselves and are in a phase of homeostasis (equilibrium with their environment). Ethnography knows very many isolated ethnol that, thanks to their geographical position, have not been drawn into dealings with other ethnol or have become involved in it only in the past 100 years. Such were the many tribes of Canada before the coming of the fur-trading companies, the Indians of the interior of Brazil before the rubber boom, the Australians until the coming of Europeans, and certain mountain people of the Caucasus (even after the capture of the Gunib plateau of Daghestan by Russian troops). There are many other peoples and tribes with a greater or less degree of isolation not only in India and Africa but even in Europe. But what is very important is that isolates arise under the eyes of the historian. Such are the Icelanders, descendants of the Vikings who settled the island in the ninth century A.D. and who lost the warlike spirit of their forefathers over 300 years. The offspring of Norwegian, Danish, and Swedish Vikings and slave girls captured in Ireland, already constituted a small but independent ethnol in the eleventh century that preserved certain traditions of olden times and married within their island.

Absence of frequent intercourse with foreigners inevitably leads to stabilization of the relations within an ethnol. A structure arises that I call 'stagnant', and a 'simplification of the system' takes place in the ethnol. Let me clarify this from an example.

In Ancient Egypt the united Hamite tribes merged into a powerful ethnol and created a ramified social system. In it were the pharaoh and counsellors, princes or dukes of nomes and armies, priests and scribes, merchants, farmers, and poor labourers. The system became complicated as clashes occurred with foreigners. The conquests in Nubia and Syria were made by professional soldiers; treaties with Babylon were concluded by experienced diplomats; canals and palaces were built by specialist engineers trained from childhood. The ramified system survived the Hyksos invasion and was revived as if watered by a regenerating power. But from the eleventh century B.C. a process of simplification started, and the resistivity of the system fell. From 950 B.C. power over Egypt fell into the hands of Libyans. In 715 B.C. dominion passed to Ethiopians, who lost a war with Assyria, and then Asians occupied

Egypt, which lost the capacity to defend itself. The Sais dynasty liberated the country but was supported by the spears of Libyans and Hellenes. In 550 B.C. this dynasty fell, after which Egypt was successively dominated by Persians, Macedonians, Romans, Arabs, Berbers, and Turks. Of all the social groups only the farmer fellahin and a small handful of Hellenized Coptic townsmen survived by the first century A.D. The fellahin became isolates, and although an active, historical life seethed around them, it had nothing to do with them. They lived in a society not ethnically foreign to them but remained themselves for 2 000 years. We can call that ethnic statics or rest. It means that development so slowed down that it could be ignored in the description.

Statics and dynamics. Let me explain the terms. I conditionally call those peoples whose life cycle is repeated without change in each generation 'static' or 'persistent'. That does not mean, of course, that such peoples do not experience external influences. They often even perish from a change of the environment, as, for example, the Tasmanians, who were wiped out, or the Araucans who were stamped out in Patagonia. Sometimes stable ethnic groups, tribes, or peoples avoid borrowing from their civilized neighbours, but more often they easily adopt what suits them without thereby changing their accustomed rhythm of life. The Algonquian tribes, for example, had already taken the musket into their armament in the seventeenth century, and learned to shoot no worse than the French or English colonists; the Patagonians were converted in one generation in the nineteenth century from hunters on foot to mounted ones; the Tungus mastered matches and iron stoves suitable for their skin tents. But the ethnic image of these peoples remained as it used to be, until the twentieth century. Neither the Algonquians nor the Araucans became French or Spanish.

The problem of 'fathers and sons' always arises among 'dynamic' peoples. The young generation is not like the older one. Ideals, tastes, and customs change, and a category of 'fashion' develops. Along with the appearance of the new there goes a forgetting of the old; these changes are called the development of culture.

Dynamic peoples are also not eternal. They either disappear without trace or, with the passage of a certain cycle of development, are converted into static peoples who in turn, after various transformations, become dynamic, but already different peoples. The disappearance is sometimes linked with the complete death of the people who constitute the ethnos, the survivors being assimilated by neighbouring ethnic communities; the people remain but

the ethnos as a systems entity disappears. If part of an ethnos is preserved as a relict it will be an isolate.

These examples are clear, but there are such smooth gradations of traditionality that if we distributed all the ethnoi known to us by degree of diminishing conservatism, it would turn out that the zero limit, i.e. the absence of tradition, is not reached by any ethnos, because by then it would have simply ceased to exist, having melted away or been dissolved among neighbours. That phenomenon, though observed from time to time, is never the fruit of the purposive efforts of the ethnic collective itself. Nevertheless ethnoi die. That means there are destructive factors through which this happens. And since no ethnoi are completely isolated from external influences, we must suppose that all ethnoi are mortal. It is most interesting that ethnoi sometimes prefer death to an existence unacceptable to them. Why?

Perhaps it is this right to death that distinguishes an ethnos that is in a state of homeostatic equilibrium with its environment from a population of any species of animal. The death of an ethnos is a breakdown of systems unity, and not total extinction of all the individuals composing it. Although history has preserved shameful pages of the extermination of separate Indian tribes by Americans, and of Hunni by the Chinese, the members of a dying ethnos much more often become part of new, neighbouring ethnoi. Ethnic extermination is therefore more a social phenomenon than a biological one.

According to dialectical philosophy death is a necessary moment and the law-governed result of an organism's life activity,

the *negation* of life as being essentially contained in life itself, so that life is always thought of in relation to its necessary result, death, which is always contained in it in germ.²³

This universal law of dialectics operates as well in the processes of ethnogenesis.

Just as a person can be killed at any age, so an ethnogenetic process can be cut short in any phase. It is easier, however, to cut ethnogenesis short either at the commencement when the ethnos has not gathered force, or when it is ending, when this force has already been expended. The level of technique and culture, moreover, is not of great significance, any more than the size of the population. In the fifteenth century the Iroquois created an original, developing form of community life—a league of five tribes, a sort of republic. The Nahua were the start of the Aztecs, and the state of Montezu-

ma II can hardly be considered undeveloped from the fourteenth to the sixteenth century (more exactly from 1325 when Tenochtitlan was founded, to 1521 when it was captured by Cortes). These are examples of beginning ethnogenetic processes cut short by blows from outside.

An even more graphic example is the ancient Jews. In the fifteenth century B.C. nomadic tribes the Habiru invaded Palestine and seized a territory on the Jordan. In level of technique and methods of farming, and fighting methods they were indistinguishable from the other Semitic tribes of Syria and Arabia, and behind the peoples of Egypt and Babylonia. But this was a people that was intensively developing on the ethnic plane, and it survived all neighbours, until perishing as an ethnic community under the short swords of Roman infantry. A few saved themselves, finding refuge in Parthia and on the Rhenish frontier of the Roman Empire. But this death coincided (and obviously not by chance) with the ethnic divergence of the Jewish people themselves, when the Pharisees, Sadducees, and Essenes ceased to feel their community and began to see each other either as apostates and traitors (the attitude of the Pharisees and Essenes to the Sadducees) or as savages (the attitude of the Sadducees to the Essenes, or the common people), or as a priestly caste cut off from the people (the attitude of the Sadducees and Essenes to the Pharisees). But in standard of culture the Jews in the first century A.D. were not inferior to either the Romans or the Greeks.

One might think, from these examples, that it was barbarism that had forces within it that vanished with the development of culture. But that point of view finds no support in history. European peoples conquered Africa and South-East Asia in the nineteenth century and created a system of colonial empires that embraced almost the whole land surface of the world at the beginning of the twentieth century. In some cases that can be explained by superiority of military technique, but not always. In India, for example, the Sepoys were armed with British weapons, yet nevertheless were beaten by the British, who were fewer in numbers. The Turkish army was not inferior in quality of weapons in the seventeenth and eighteenth centuries to the Russian and Austrian armies, but Prince Eugene of Savoy and Suvorov proved the victors, in spite of the smallness of their armies and the remoteness of their supply bases. The French conquered Algeria and Annam not so much by better guns as by the celebrated courage and daring of the Zouaves exhibited in the little (anti-guerrilla) war. The Italians, on the con-

trary, while disposing of the most modern weapons, lost the war in 1896 with the Negus Menelik, whose troops were armed with spears and flintlocks, but who were not inferior in the antiquity of their culture to the natives of Italy. That's how it was!

All these conquests were inseparable from the ethnogenetic process in Western Europe, the consequences of which made it possible to create nations and colonial empires already back in feudal times. But the extension of the area of the European ethnoi finished in the twentieth century, and it has become clear that it was an important, bloody, heroic, and contradictory episode (but only an episode and not the pinnacle of evolution) in the history not only of the whole world but of Western Europe itself. The collapse of the colonial empires, that we have been witnesses of, shows that the process of ethnogenesis had passed the phase of flowering, and that history took a former direction, viz., Europe again returned to its geographical frontiers. It is consequently not a matter of level of technique or culture, and it is impossible to build a model of ethnic development on these principles.

No people, no races remain unchanged. Continually they are mixing with others and slowly changing; they may appear to die almost and then rise again as a new people or just a variation of the old.²⁴

But it remains unclear why isolated ethnoi lose the capacity to resist a hostile environment. In Arnold Toynbee's conception of 'response' to 'challenge', they should give a powerful response to the challenges of an enemy, but they either surrender or take flight and scatter. The transition to homeostasis, which enables an ethnos to exist in isolation, is seemingly linked with loss of some attribute that stimulates its resistance in earlier phases. They remain firm in one thing only, not to admit others into their environment.

Incorporation. The peculiarity of the ethnic phenomenon noted and described explains the difficulties constantly arising during the incorporation of outsiders. It is not sufficient, in order to become part of a foreign ethnos, to desire to do so and simply even for the accepting collective to agree. It is possible to fit beautifully into a foreign medium and still for it not to become one's own.

But entry into a small ethnos living by a natural economy is the most difficult, although there have been exceptions to that. The ethnographer Lewis Henry Morgan, for example, was recog-

nized by Iroquois as one of them, and the French interpreter and fur-trader Etienne Brulé by the Hurons. One could continue with examples, but justice demands that we note that Morgan still remained an American scholar, and Brulé, whose activity stretched from 1609 to 1633, was killed by the chiefs of the tribe after he had set the young men against old customs. V.G. Bogoraz described a 'Russian Chukchi'—an orphan boy brought up by Chukchi—who did not know Russian. The Chukchi persistently considered him Russian, and he held that opinion as well, himself.

Incorporation, employed for practical purposes since time immemorial, has thus always run up against the resistance of a factor lying outside the limits of consciousness and self-awareness, in the field of sensations which, of course, reflect phenomena of nature that are not always correctly interpreted by the apparatus of consciousness. However complicated the problem, I can now conclude that the ethnic phenomenon is material, that it exists outside and apart from our consciousness, although it is localized in the activity of our soma and higher nervous activity. It is manifested in nuances of people's character and activity, and is related to ethno-psychology. The latter must not be confused with social psychology, which aspires 'to account for the things that men do in terms of the properties of five functional units—act, meaning, role, person, and group';²⁵ 'a social group', moreover, 'may be regarded as consisting of men acting together as a unit',²⁶ as participants 'in collective activity',²⁷ the members of a football team, for example, or a 'Lynch court'. Just so, but not an *ethnos*! And as Shibutani noted:

(The) many European intellectuals who fled to America ... in many cases ... knew more about American history, law, and regional customs than the natives. Yet they frequently found themselves perplexed by the strange reactions they encountered. Using the distinction that William James made famous, the scholars had a 'knowledge of' American life, but they did not have an 'acquaintance with' it. In spite of all they knew, they were unable to understand many simple things that any child reared in the United States could intuitively feel as the proper thing to do.²⁸

It is characteristic, moreover, that some people could settle down in America, while others longed to get away, despite their being well remunerated there.

There are seemingly different degrees of ethnic compatibility. With some incorporation is easy, with others difficult, and with still

others impossible. What is the reason for so strange a phenomenon?

There have always been ethnoid since neoanthropes appeared on Earth. And their mode of existence, as the history of mankind shows, is one and the same—origination, expansion, loss of a degree of activity, and either disintegration or transition to equilibrium with the environment. This is a typical inertial process of a system that exchanges information and entropy with the medium, always in a special unique way or, one may say, in an original rhythm. It is that which limits incorporation. In order to become truly 'its own', one must be included in the process, i.e. inherit the tradition and ideals of the ethnoid, and that is only possible in infancy and when the person being incorporated, moreover, does not know his own true parents. In all other cases incorporation is converted into ethnic contact.

The difference between equilibrium and development. Now let me ask what is the difference between isolated ethnoid and those that are developing rapidly. In the systems of relict ethnoid there is no struggle between members of the ethnoid, and when there is rivalry it does not involve death of the loser. Only innovations are hounded that, as a rule, no one wants. But if so, then natural selection, one of the factors of evolution, is snuffed out. There remains an ethnoid-relief equilibrium on the background of which only social progress or regress is possible. But in the complex, difficult conditions of readaptation and change of stereotype of behaviour natural selection arises again, and the population being formed by it either dies or becomes a new ethnoid.

The primary classification of ethnoid on the plane of their becoming is thus their division into two types differing sharply from one another in a number of attributes, as shown in Table 1.

The division proposed is based on a principle different from those so far employed (anthropological, linguistic, social, and historico-cultural). The twelve attributes of difference noted in Table 1 are invariant for all ages and territories. Just as in a class society there may be persistent ethnoid, so in the gentile system a regrouping of individuals also takes place through which new tribal alliances or military-democratic associations arise. Examples of the first variant can be the inveterate slaveowning relations in Arabia, among Bedouin tribes, in West Africa (in Benin, Dahomey, etc.), among the Tlinkits of north-western America, and among the mountain peoples of the Caucasus before the nineteenth century, who owned male and female Georgian slaves. Hardened feudal re-

Table 1

Signs of the Difference between the Persistent and Historical States of an Ethnos

Sign	Persistent State	Historical State
Relation between generations	The new generation aspires to repeat the preceding one	The new generation aspires not to be like the preceding one (the fathers and sons problem)
Attitude to time	Cyclic counting of time	Linear counting of time
Attitude to nature	Economy adapted to the relief	Adaptation of the landscape to the needs of the economy
Attitude to neighbours	Defence of frontiers, hospitality	A striving to extend territory, wars of conquest
Attitude to offspring	A striving to limit growth, infanticide	A striving to unlimited multiplication
Attitude to religion	Genotheism, non-admission of foreigners to their culture	Proselytizing and religious intolerance
Attitude to social institutions	Authority of elders	Institution of power (authority)
Attitude to public affairs	Conservation of already formed groups of the population	Formation of classes or new tribes
Attitude to other cultures	Ignoring of other ideas and borrowing of technique	Active assimilation of foreign ideas, adoption or repulsion
Length of the life cycle	Limited only by the external influence of elemental or anthropogenic origin	Not more than 1500 ± 200 years (according to observations)
Ethnogenesis	As a result of a long evolutionary process of a historical ethnos	As a consequence of mutation and the appearance of a population with an ethnogenic attribute
Relationship	Tenure in the historical state is regarded as a senseless, unnatural waste of forces	Existence in a persistent state is evaluated as 'uncivilized', 'stagnant', 'inferiority'

lations were observed in the nineteenth century in Tibet, western and north-eastern; in mountain Daghestan, among Yakuts, and among Malays. The Iroquois League, on the contrary, which arose in the fifteenth century, is a clear example of the creation of a new ethnos in conditions of pre-class society. The same process took place in the clan state of the Hunni in the third century B.C., and in the military-democratic Turkish Kaghanate ('The Eternal Ehl') in the sixth to eighth centuries A.D. The Celts of the first millennium B.C. undoubtedly constituted an ethnic whole, with a clan system of social relationships. The number of examples can be multiplied, but those given are sufficient. Any division of material in a classification is arbitrary, but that is why it is constructive, because it is defined by the task set by the systematizer. My aim is to establish the place of ethnic forming in diverse observed phenomena. And of course, it turns out that the rise of an ethnos is a rare case on the background of general ethno-relief equilibrium, which cannot be treated as 'backwardness' or 'stagnation' occurring because of the inferiority of the people. All modern 'stagnant' ethnoi developed at some time, and those that are developing now, if they do not disappear, will become 'stable' sometime later.

Ethnogenesis and natural selection. It follows, as a consequence, from the descriptions of the phenomenon of ethnos given above, that social and ethnic processes are different in nature. Coincidence between social and ethnic rhythms is accidental, although it is they that strike one during superficial observation, since interference during phase coincidence increases the effect. The problem facing us has to be formulated as follows: where do the forces that create ethnoi come from? There must have been such forces, because if there were not, then the entropy determined by natural selection, ages ago in the Palaeolithic, would have smoothed out all ethnic differences and converted the diversity of the human race into a featureless anthroposphere.

It is usual to say that natural selection must always lead to the survival of individuals better adapted to the struggle for existence. But J.B.S. Haldane noted that this is correct for a rare, dispersed species forced to defend itself from other species and inorganic nature. But as soon as a population becomes dense the separate representatives of the species begin to compete with one another. If even separate individuals prove victorious, the struggle itself is biologically harmful for the species. The development of huge horns and spines on males may help them to win personal victories, but it is often the beginning of extinction of the species.²⁹

That point also concerns man, who is a dominant species, the pinnacle and crowning link of the biocoenosis. The struggle of individuals within a species noted by Haldane has nothing in common with the intraspecific struggle for food and transference of its patterns to human society. Something quite different is established here, viz., sharpening of the struggle for predominance in the flock or herd, it being, moreover, not surprisingly, the victors who do not leave offspring. We consequently meet not Darwin's law of survival of the fittest but a kind of excess that is not reflected in the evolution of the collective as a whole. The selection occurring through the clash of adult males or expulsion from the herd of growing young males does not lead to the formation of new populations, but on the contrary is a powerful factor preserving the attributes of the majority of the individuals, including the stereotype of behaviour.

This is quite understandable, because each species populating a certain region, is part of its biocoenosis and is adapted to it in the best way. That position is only disturbed when there is a change either of the physical, geographical conditions, for example during a lasting drought or powerful flood when the soil is covered with alluvial deposits, or during migration into the region of other animals that alter the balance of the biocoenosis. All these considerations also apply to man, who is a major predator, and the crowning link of the biocoenosis. But the influence of any exogenic factors does not explain why, even in the absence of catastrophes, some ethnai replace others, leaving as a legacy to posterity only ruins of architecture, fragments of sculpture, fragments of literature, and household vessels, and muddled memories of ancestral glory. Selection obviously has a different significance for man, and that is what Haldane paid great attention to.

Hence biological selection has largely been directed upon those characters which determine that one individual member of a nation shall be represented in the next generation by more children than another.

These characters include resistance to disease and a certain measure of physical vigour. But they do not include a number of the qualities which man himself finds most admirable, or which make for the multiplication of the species as a whole.³⁰

According to Haldane the genes of the martyrs of ideas and science, of bold warriors, poets and artists are met less and less often in succeeding generations. For my analysis what may happen as a result of this for the further fate of an ethnai is important, not of course on the social plane but in the aspect interesting me, i.e.

the population, genetic one. Haldane formulated this position as follows:

...natural selection can only act on the variations available, and these are not ... in every direction. ...most mutations lead to a loss of complexity ... or reduction in the size of some organ. ...most evolutionary change has been degenerative.³¹

A similar conclusion can be reached, employing the method of cybernetics:

Decay of variety. Having ... a set of states and one single-valued transformation, we can now ... predict that *as time progresses the variety in the set cannot increase and will usually diminish.*³²

At first glance the thesis demonstrated by Haldane contradicts the school idea of evolution as progressive development. But as soon as we adopt the dialectical method the contradiction disappears like smoke. Species either degenerate or become stabilized and transformed into persistent ones. But new species arise, more perfected than the preceding ones. Yet they yield their place in the sun to whoever follows after them. The reptiles succeeded giant amphibians, and mammals the dinosaurs, and modern man Neanderthal man. And each rise is preceded by a deep fall.

Translating that into the language of ethnology, let us apply it to our material, taking the simplest model, viz., a localized (territorially), closed (genetically), self-forming (socially) ethnic collective.

Altruism, or rather anti-egoism. A newborn ethnos is automatically switched into the world historical process as soon as it announces its existence. That means that it begins to interact with neighbours that are always hostile to it. It cannot be otherwise, for the advent of the new, active, and unaccustomed breaks up the already established and accustomed way of life. The riches of the region in which an ethnos is born are always limited. And that applies primarily to stocks of food. It is quite understandable that those who have lived quietly under the established order will not want to cramp their style or yield place to other people, foreign to them, and incomprehensible and unacceptable to them. Resistance to the new will arise as a natural self-defence reaction and will always take acute forms, usually of a war of extermination. For an ethnos to win, or at least to defend itself, an altruistic ethic must arise within it, by which the interests of the collective will become higher than personal ones.³³ Such an ethic

is also observable among gregarious animals, but only in man does it get the significance of the sole species-preserving factor. It always borders on an egoistic ethic in which the personal and the family are put higher than the social, but since the interests of the individual and collective often coincide, acute conflicts seldom arise. From the standpoint of preserving the human analogue of the species taxon, i.e. the *ethnos*, a combination of both ethical conceptions creates the optimum situation. Functions are divided. The 'altruists' defend the *ethnos* as a whole, the 'egoists' reproduce it in progeny. But natural selection leads to a reduction of the number of 'altruists', which makes the ethnic collective defenceless and, with the passage of time, the *ethnos*, deprived of its defenders, is swallowed up by neighbours. And the progeny of the 'egoists' continue to live, but already in the ranks of other *ethnoi*, remembering the 'altruists' not as their hero-defenders, but as obstinate, wilful, difficult people with a bad character.

There can be only one way of testing that formula on historical material, and I shall have to speak about it in more detail. Ethics regards a relation of what is to what ought to be, and the ought, like the real or existent, changes in each age. These changes are always distinctly registered by the authors of sources who in other respects shamelessly distort the facts. They are sincere in that, because they are describing the ideal rather than reality, an ideal that seems to them beyond doubt in each case. We can therefore employ historiography and even the literature of the past in order to fix a change in the behavioural imperative, taking them not as a source of information but as a fact subject to critical investigation, and to establish thereby how the process really went. As an example let me take some completed stretch of the history of a nationality (not of a state, and not of political institutions, and not of socio-economic relations, but precisely of an *ethnos*), that is quite familiar to the reader, and briefly examine its phases. A convenient example is a city-state—Ancient Rome. If we disregard the mythical, and therefore unreliable period of the kings, we can easily trace the evolution of the relations of the 'altruists' and the 'egoists' from the first secession (the withdrawal of the plebs to Mons Sacer, after which followed their compromise with the patricians) which determined the character of the social system, to the edict of Caracalla (recognition of provincials, subjects of Rome, as Romans), i.e. from 494 B.C. to A.D. 212. That had already been done in antiquity, incidentally, by Roman historians, who called the process 'the decline of morals'.

In the first period, to the end of the Punic Wars, there was no lack of heroes ready to die for the patria, as the authors of the sources report. Quintus Mucius Scaevola, Alarcus Atilius Regulus, Lucius Quinctius Cincinnatus, Emilio Paolo, and a host like them, probably, were largely made a patriotic legend, but it is important that it was precisely such personalities that served as the ideal of behaviour. During the civil wars the position was drastically altered. The heroes became the leaders of parties: Marius or Sulla, Pompey, Crassus or Caesar, Sertorius, Brutus or Octavian. They no longer gave their lives for the patria but risked life in the interests of their party and with certain profit for themselves. During the Principate, too, there were no few intrepid and energetic figures, but they all acted openly in their personal interests, and that was perceived by public opinion as proper and even as the sole possible behaviour. Emperors and generals were now praised for conscientious performance of their duties, i.e. for absence of dishonesty and senseless cruelty, but that meant, of course, that they were perceived as 'rational egoists', because it was profitable to them themselves. The parties of the optimates (patricians) and of the plebs receded into the past and groups of certain legions came to the fore, for example, Syrian, Gallic, Pannonian, etc., who fought among themselves exclusively for power and money. Under the Severan dynasty the ideal of force and profit triumphed; it was not accidental that the Roman ethnos, called the *Populus Romanus*, melted away at that time among the peoples it had conquered.

We see a similar picture in Europe in the Middle Ages, when the most urgent task was the war against the Muhammedans. The heroes of the first epic poems—Roland and El Cid Campeador—were palladins of Christianity. In fact Roland was the historical count of the Breton Marches and was killed by Basques and not by Moors; El Cid was simply an unprincipled adventurer. Nevertheless the ideals were altruistic and heroic. In the second period the hero did not forget himself. Such were Cortes and Pizarro, Vasco da Gama and Albuquerque, Francis Drake and Juan of Asturias. No one held it against them that they, though men of courage, were frankly selfish. On the contrary, that even evoked admiration and approval. Time passed, and the mercenary soldier, for whom only his own skin was important, became a hero, although one must give him his due for wit, self-control, and self-possession. As we see, the ideal, varying in a certain direction, is an indicator of shifts in the social subconscious, because the attitude of an author to a hero is emotional and, consequently, deliberate lying is ruled out. But the social subconscious reflects a deeper essence, viz., a change of the

stereotype of behaviour that is the real basis of the ethnic nature of human collective being.

But it is impossible in that connection not to take the sphere of the conscious into account, because only consciousness makes it possible to find the optimum decision in a situation that cannot help being acute. Until a new ethnic system is formed, and while inertia is accumulating, the process may be disrupted by outside interference; consequently, there is no room for determinacy (fatalism).

The extermination of relict ethnoi. With such a posing of the matter one can answer why ethnoi die out and, moreover, so frequently that not one of those recorded at the beginning of written history, in the third millennium B.C., remains, and of those that lived and acted at the beginning of our era, there remain rare units. It is all the more necessary, since indirect descendants of the ancient Romans, Hellenes, and Assyrians, changed out of all recognition, still live but are no longer Romans, Hellenes, or Assyrians, because they have borrowed only the gene fund from their ancestors. Let me take an example from palaeontology which is also concerned with the problem of the extinction of biological taxons (it is not essential in principle what the magnitude of the studied object is). The process of dying out, it seems, should have a pattern.

At first glance it may seem that the least developed species, and consequently the least adapted to the natural situation of past eras, are the survivors, while the old kings of life—the dinosaurs, mastodons, sabre-tooth tigers, cave bears, and cave lions—disappeared completely, although they had no worthy rivals. The extinction of species went hand in hand with a gradual reduction of their area and with the rivalry of neighbouring species that dislodged the doomed one from the biochore. But it remains unclear what this 'doom' consisted in. Without straining to solve the palaeobiological problem, I can say that in ethnology it lies in the structure of an ethnos. Other conditions being equal (numbers, technique, etc.), complication of the structure increases resistance to a hostile environment, while simplification reduces it. That is why physically and intellectually sound peoples, for example Indians or Polynesians, proved helpless compared with colonizers who were by no means the best representatives of their peoples. The greatest danger, both for an ethnos and for nature, is thus neighbours that have not lost, during development, the capacity to adapt and therefore extend their area. Without the appearance of such an enemy a relict ethnos can exist for an unlimited time. But the death of developing ethnoi is not excluded (right down to complete annihilation), if they

come up against the irresistible resistance of more rapacious neighbours. Let us limit ourselves to one striking example, the Turks (Turkuts) of the sixth to eighth centuries A.D.

From A.D. 550 to 581 a small Altaic ethnos, the Turkuts, established their domination over the whole Great Steppe from China to the Don, and from Siberia to Iran. The system—called the 'Eternal Ehl'—was flexible and ramified. The steppe and mountain tribes had their place in it and also the inhabitants of the Sogdian oases and of the then broad lower reaches of the Volga, merchants and shepherds, Buddhists and Fire-worshippers, together with the Turkic warriors themselves who honoured 'the Blue Sky and the Black Earth'. But China, united by the Sui Dynasty (A.D. 589-618), and the victorious T'ang Dynasty (A.D. 619-907), was stronger and more aggressive. The Chinese could not break the Turks' resistance by military force, but they managed by diplomacy to divide the united Kaghanate into Western and Eastern, and then to isolate the steppe-dwellers from the oases of the Tarim basin, which they occupied, and from Sogdiana, fallen victim to the Arabs; then the Chinese rose Uighurs, Karluks, and Basmali against the Turks, and managed to defeat the Turkish horde in A.D. 747, the victors taking no prisoners. But the Chinese themselves accepted the Turkish fugitives and enrolled them in their border troops. The 'fortunates' were killed in A.D. 756-763, having taken part in An Lushan's uprising against the despotism of the Chinese bureaucracy. The steppe Uighurs and Tibetan hillmen opposed the mutineers, as well as the Chinese, so that there was nowhere to flee to. The isolated, and in that way simplified system perished. Everywhere that similar collisions have been observed, the mechanism of the process has remained unchanged.

Ethnic Contacts

The hierarchy of ethnic taxonomy. All the examples I have cited show that superethnoi are not the arbitrary generalizations of historians but entities no less real than ethnoi, although having certain original features that I shall draw attention to below. For the present let me say that a superethnos, like an ethnos, is a systems entity of a higher order than an ethnos. The existence of an even higher form, the hyperethnic, is possible, i.e. of a formation of several superethnoi that oppose themselves to another group. But this is usually ephemeral and there is no need for my purposes to study this level.

Ethnic systematics differs, of course, from social classification. They only rarely coincide. The need for the one or the other depends on the aspect of the investigation, i.e. on the angle from which the chain of historical events is examined. And this angle is determined by the task set the investigator, who selects a degree of approximation serving his purposes. The fact that this task has been repeatedly posed and has not received a satisfactory answer (Vico, Spengler, Toynbee) should not deter the investigator from continuing attempts at empirical generalization, however difficult they may be. Unlike some authors, who have inquired into how this process goes, I have the possibility of answering what precisely is subject to change, although I get a fundamentally one-sided model that characterizes only certain aspects of the phenomena. But the creation of conceptions underlies any historical interpretation, which distinguishes history ('the search for truth') from the chronicle or a simple enumeration of events. I start from the varied material accumulated by historical science, so that the object of study becomes the system of phases of ethnogenesis at one level or another and in one definite epoch or another, and not Spengler's 'élan' or Arnold Toynbee's 'intelligible field of study'. For the following epochs proceeding in historical time, the arrangement of the components will already be different.

Now we can construct an ethnic hierarchy in general form, and at the same time make the meaning of the terms more precise.

Anthroposphere — the biomass of all human organisms.³⁴

Ethnosphere — the mosaic anthroposphere³⁵ + the sociosphere, i.e. a combination of ethno-relief systems entities, which are always dynamic.

Superethnos — a group of ethnoi arising simultaneously in a region and exhibiting itself in history as a mosaic entity.

Ethnos — a stable collective of people that counterposes itself to all other collectives and has a peculiar, original structure that changes regularly in historical time. More precise definition: a dynamic system arising naturally in Earth's biosphere and changing through the phases of ethnogenesis.

Subethnos — an element of the structure of an ethnos interacting with other elements. With simplification of the ethnosystem in the phase of decline the number of subethnoi is reduced to one, which becomes relict.

Taxonomic units of one order:

Consortium — a group of people united by one historical fate or destiny; it either breaks up or passes into a convicinity.

Convivinity—a group of people united by a way of life of one character and by family connections; it sometimes passes into a subethnos. It is not recorded by history but by ethnography.

Having agreed to understand by ethnogenesis not simply its initial, starting moment (the appearance of an ethnos on the arena of history), but the whole course of the forming of an ethnos to the end (about which I shall speak below), one can give the following definition: any directly observed ethnos is some one phase of ethnogenesis. And ethnogenesis is a deep-seated process in the biosphere observable only through its interaction with the social form of the motion of matter, i.e. the external manifestations of ethnogenesis accessible to study have a social character.

And that poses the main question, viz., why do the processes of ethnogenesis arise that generate the ethnoi studied by ethnographers. According to a widely held point of view new ethnoi arise through close living together, as a consequence of mutual assimilation of primary ethnic substrata.³⁶ But, like all banal conceptions, it crumbles under an elementary check. The French and the Germans have lived in neighbourhood on the banks of the Rhine for more than a thousand years, profess one religion, employ identical everyday objects, study each other's language, but have not merged, just the same as the Austrians and the Hungarians and Czechs, and as the Spanish and the Catalonians and Basques. One could continue with examples.

A merging of ethnoi in one region takes place sometimes, very rarely, but the merged ethnoi then disappear, and in their place a new one appears dissimilar to either of them. At first the members of the new ethnos cannot yet get used to their distinctiveness, but in the second or third generation they note their difference from their ancestors. This phenomenon cannot be considered the result of mutual assimilation since it does not always occur and happens very quickly, almost explosively. Some kind of supplementary factor that we have to discover is required for their origin.

Apart from the mode of origin of ethnoi described, there is another, not like the first. Often, as a result of historical upheavals, a group of people hives off and changes its place of residence. In the course of time these people work out a new stereotype of behaviour and lose their link with the metropolis. These groups sometimes fall to pieces but frequently, by intermarrying with aborigines or other settlers, they form an independent ethnos.

Examples of the second variant are the Americans of Anglo-Saxon origin who broke their ties with the English at the end of the

eighteenth century, the descendants of the Spanish conquistadores or Creoles, the Boers, grandsons and great-grandsons of Dutch, French, and North-German peasants, the Buryats—Mongols who at the general assembly in 1688 preferred alliance with Russians to submission to Manchus—and similar groups, cut off from the main ethnos by the vicissitudes of fate. It is easy, and very necessary, to note that the genesis of both varieties is different, and the character of the variability has nothing in common in the two variants. In the second case the newly appearing ethnos remains within the orbit of its culture, only acquiring a local peculiarity. In the first case there is a quite new phenomenon that retains the institutions of the peoples giving rise to it, as survivals or borrowings. Obviously, the first variant is genuine ethnogenesis, i.e. the birth of new peoples, while the second is only the reproduction of existing peoples. I shall therefore, in what is to come, speak only of the first variant, and in so far as history is the science of events, and the events happen through collisions during the contacts, it is the contacts that must be given predominant attention. I have already touched on this theme, but not sufficiently.

Contacts at different levels. Returning to the problem of ethnic contacts, it is necessary, first of all, to pose the question of the level at which the contacts are made (see Table 2). A combination of two or more consortia and convicinities is not stable. It leads either to break up or to the formation of a lasting form of subethnos. The problem of intermarriage is treated here as 'unequal marriage' with someone 'not of our circle', the rung of the social ladder often having no significance. Thus, Cossacks still regarded marriage with peasants, and even with gentry, in the nineteenth century as 'unequal', although the gentry were often richer and more noble than the Cossacks. I have heard a maxim, coming originally, it would seem, from the Time of Troubles³⁷: 'It says in the Scriptures: Yids do not consort with Samaritans, and cossacks with gentry'. Of course there is none of that in any 'Scriptures', but how like that is to the attitude of Kurds to Persians and Armenians. The poor Kurdish shepherd will not decide to present a Persian wife to his relatives unless she is known to have a splendid genealogy. The Albanians maintained themselves that way in the Ottoman Empire, the Basques in Spain, the Scottish Highlanders in Great Britain, the Pathans in the Hindu-Kush. They formed stable ethnic entities with other subethnoi on a basis of symbiosis, reinforced by endogamy. In the central part of Eurasia forms of the symbiosis of ethnoi have been very clearly manifested since remote antiquity. The ethnoi oc-

cupied different topographical regions that corresponded to their cultural and economic habits, and did not disturb but helped one another. So the Yakuts settled in the broad flood plain of the Lena, while the Evenks lived in the watershed massifs of the taiga. The Great Russians settled along the valleys of rivers, leaving the step-peland spaces to the Kazakhs and Kalmyks, and the heart of the forest to the Ugric peoples. The more complex and ramified such an ethnic entity was, the stronger and more resistant it was.

Table 2

The Ethnic Hierarchy

Taxonomic Unit	Hybrid	Direction of Development	Limit of Formativeness
Consortium	Unstable combination	Toward a social institution	Convicinity
Convicinity	Altered combination	Toward a territorial community	Subethnos
Subethnos	Symbiosis*	Toward ethnic self-assertion	Ethnos
Ethnos	Xeniz**	Creation of a social organism	Conservation of structure
Superethnos	Chimaera***	Annihilation****	Relict*****
Mankind	Hypothetical cross-breeding with Palaeoanthrops in the Mesolithic on Mt. Carmel	Ethnogenesis	?
Hominids	?	Evolution, as phylogenesis	Disappearance of species

*Symbiosis — coexistence in which the symbionts benefit one another.

**Xenia (Gr. *xenos* — a guest) — in geology xenolith, a piece of rock which has been incorporated in a rock and either congealed in it, or converted into a contact hybrid formation.

***Chimaera — a mythical animal with a lion's head, the body of a goat, and the tail of a dragon; an inorganic combination of different ethnoi.

****Annihilation (phys.) — conversion into nothing; the phenomenon of the conversion of elementary particles of different sign into another form of matter, e.g. into light, with loss of mass.

*****Relict (Lat. *relictus*) — a survivor or surviving trace.

The combination of two or more ethnoi in a single social organism is another matter. The character of a social organism of this or another kind puts its stamp on the interaction of the mixed ethnoi which, forced in some cases to live in one region, reconcile themselves to the fact of coexistence but cannot help being oppressed by one another. One can call them xenias. Belgium is one such, where Walloons and Flemings were pushed close together like the tenants in shared accommodation. Such is Canada, where English-speakers, French, Franco-Indian métises, and now, too, Slavs, coexist but do not merge and do not share functions, which is inherent in symbiosis. A similar situation in Scandinavia was ended with the separation of Norway from Sweden, which was to the benefit of both.

The contact of two or more superethnoi, however, is even more painful. Then not only does ethnic annihilation occur, but also a demographic decline, or to put it bluntly dying out because of intolerable conditions or physical extermination of the weak party. Such situations arose in the eighteenth and nineteenth centuries in the USA (the shooting of Indians with payment for scalps), in Brazil during the rubber boom, in Australia during its annexation by the British, and in the valley of the Yellow River where the civilization of ancient China came up against the culture of the ancient tribes of Tanguts. No Tanguts remained.

But at the same time whole periods are observed in history of the coexistence of superethnoi, not always peaceful but also not mutually exterminating. And sometimes subethnoi in one ethnic entity waged murderous wars on one another, finding (and sometimes not) an excuse for hatred. Let us take the clearest examples and examine how that came about. Can the history of states provide an exhaustive explanation of the course of events?

The relation of ethnic entities of different orders. The division of ethnoi proposed is very useful not only for contemporary but also for historical ethnography. I shall try to demonstrate that from the example of an age well studied and long past, namely, the twelfth century in Eurasia, and as a partial example, Old Rus about which there have been so many disputes and which is counted by the banal, and therefore commonly held division, as both 'West' and 'East'. That quite irrational division was born in the superethnic entity of the Romano-German world, ideologically united by the Roman Church and by its counterposing of itself to all the rest. In short, it is a Philistine Eurocentrism that had sense in the Middle Ages but which exists even now in Western Europe and its transat-

lantic continuation America. If we take the western 'Christian World' as a superethnic standard, its equivalents will be the 'Levant' or the 'World of Islam', an entity by no means religious but rather ethno-cultural, stretching from Spain to Kashgar; India, with the exception of that part where Muslims predominate; China, which considered itself the 'Middle Empire' with a barbarian periphery; Byzantium, the eastern Christian entity whose political boundaries were always narrower than superethnic; the Celtic world, defending its original traditions against English feudal lords until the fourteenth century; the Baltic Slavonic-Lithuanian pagan entity, which was becoming a relict in the twelfth century; the East European superethnic entity—the Russian land. I shall concentrate on the last-named, but will treat its ethnic fate on the background of the interweaving of the conflicts of all the other superethnoi named above, because isolation was only possible in Eurasia for the superethnos of the circumpolar peoples of Siberia, and it, too, was often disturbed now by the Evenks, now by the Yakuts.

When the Slavs made their appearance in Eastern Europe, we know, they were divided into tribes that were still preserved at the beginning of the twelfth century only in the memory of the authors of the 'Initial Annals'. That was natural. Ethnic integration was proceeding intensively around the big towns, in which the former tribal differences were losing their significance in the new conditions. A.N. Nasonov has described Rus of the eleventh and twelfth centuries as a system of 'semi-states', standing on a lower scale than the 'Russian land':³⁸ (1) the Novgorod Republic and its environs; (2) the Duchy of Polotsk; (3) the Duchy of Smolensk; (4) the Rostov-Suzdal land; (5) the Duchy of Ryazan; (6) the Turov-Pinsk land; (7) the Russian land, including the three duchies or principalities of Kiev, Chernigov, and Pereyaslavl; (8) Volhynia; (9) Red Rus or the Duchy of Galicia. One must add to that list the Polovt-sian steppe between the Don and the Carpathians, captured by Vladimir Monomakh, but Great Bulgar (Bolgar), the Transdon nomadic Polovtsy, the Alan lands in the North Caucasus, and Volgan Khazaria and the town of Saxin lay beyond the Russian frontier of the twelfth and thirteenth centuries.

The Bulgars and Khazars belonged at that time to the Levantine or Muslim superethnos. They did not differ from their neighbours in their mode of adaptation to their country. But Bulgar's systematic trade and cultural relations with Iran were more effective than the influence of the geographical environment, and it was they which made Great Bulgar an outpost of the 'Muslim' superethnos and an opponent of the Dukes of Vladimir.

Following the principle I have adopted and observed, we could put the Alans and the Crimean Goths in the Byzantine superethnos, and the Lithuanians, Letts, and Yatvyags in the Baltic. The Poles and Magyars had already become part of the West-European superethnos in the tenth century, and the victory of the German Crusaders over the Slavs of the Elbe converted Catholic Western Europe into a monolithic domain culturally, although a mosaic ethnically, which was on the rise in the twelfth century and persistently, though not always successfully, was expanding its area, which led to a crisis in the thirteenth century, namely defeat of the Crusades.

Descending to a lower order, i.e. to one of the Russian subethnoi, say to Kiev, we find three active consortia there: the western, supporters of Duke Svyatopolk II, including the Kiev-Pechery Monastery; the Graecophile, supporters of Vladimir Monomakh and the Metropolis, with its see in St. Sophia; and the national, suffering heavily for sympathy with Vseslav after his banishment from Kiev.

It will readily be noted that a consortium does not coincide with class, estate, religious, and tribal divisions, being an independent system of reference. But this system is very useful because it is through it that we can catch the motives of the actions of supporters of the political trends listed above. That cannot be done by analyzing the class contradictions, because all the participants in the events belonged to the same class, but they drew strength from their sympathizers within the people. The struggle, nevertheless, was active and violent. Why? And for what?

Ethnoi always arise from contacts. How do superethnoi differ? And what prevents them from merging with one another or inheriting the wealth of their predecessors? For the ethnoi within a superethnos often merge without impediment. This heightened stability of superethnoi may be due to the existence of ethnic dominants, i.e. of verbal expressions of certain ideals that have a uniform meaning in each superethnos and a similar semantic dynamic for all the ethnoi included in the system. The ideal may be changed hypocritically, but then the merging of superethnoi would be illusory. Each member of the different superethnoi would be left in the depths of his soul with what seems natural to him and solely correct. For the given ideal seems, to its follower, not so much an indicator as a symbol of his life assertion. So I call the dominant the phenomenon or set of phenomena (religious, ideological, military, everyday, etc.) that determines the transition to purposeful uniformity of the eth-

nocultural diversity that is the starting point for the process of ethnogenesis.

Remember, the phenomenon of an ethnos is concentrated in the behaviour of the individuals that make it up, and not in the soma or in the genotype. In other words, it is not in the bodies of people but in their acts and relationships. Consequently no one is outside an ethnos, except the newborn infant. Everybody must be able to behave in some way, and it is the character of his behaviour that determines his ethnic affiliation. That being so, the rise of a new ethnos is the creation of a new stereotype of behaviour different from the preceding one. It is quite evident that the new stereotype is created by people, but perplexities immediately arise here. (1) Do these innovators operate consciously or unconsciously? (2) Is the new always better than the old? (3) How do the innovators manage to break the inertia of tradition, even not in fellow-tribesmen but in themselves, since they are flesh and blood of the former ethnos? These doubts are not resolvable theoretically, but material from palaeoethnographic observations comes to the rescue, enabling us to formulate an empirical generalization: every ethnos develops from a combination of two or more ethnic substrata, i.e. ethnoi that existed before it.

Modern Spaniards, for example, developed into the ethnos that carries this name, relatively late, in the Middle Ages, from a combination of ancient Iberians, Celts, Roman colonists, German tribes (Suevi and Visigoths), in which were mixed Basques (direct descendants of the Iberians), Alans (descendants of the Sarmatians, very close relatives of Ossetians), Semitic Arabs, Moors and Hamitic Tuaregs, Normans, and Catalonians (who partially retained their distinguishing ethnic features).

The English are a compound ethnos of Angles, Saxons, Celtic females, whose husbands were killed in battles, Danes, Norwegians, and Western Frenchmen from Anjou and Poitou.

The Great Russians include Eastern Slavs from Kievan Rus, Western Slavs (Vyatichi), Finns (Merya, Muroma, Vesi, Chuds), Ugrians (who mixed first with the Finnish tribes listed), Balts (Golynds), Turks (baptized Polovtsy and Tatars), and a small number of Mongols.

The ancient Chinese were a mixture of many tribes of the valley of the Huangho who belonged to various anthropological types of Mongoloids and even Europeoids (the Di people). There is a similar picture in Japan, where tall Mongoloids similar to Polynesians, short Mongoloids from Korea, Australoid Aini, and immigrants from China merged in remote antiquity into a monolithic ethnos.

Even the non-numerous, isolated ethnol groups whose history is lost in the haze of the centuries preserve past differences of ethnic substrata in relict anthropological and linguistic features. Such are the Eskimos and the inhabitants of Easter Island, the Mordovians and Mari people, the Evenks, and the Pathans of the slopes of the Hindu-Kush. In antiquity these were ethnic collectives of a complex composition, and the uniformity now observed is the fruit of protracted ethnogenetic processes that smoothed away the roughnesses of different traditions.

But surely that contradicts the descriptions just made of the destructive mixing of ethnol groups remote from one another? Yet both the first observation and the second are indisputable! Could a conclusion that contains an inner contradiction be true? Only in one case—if we have not made allowance for some very important detail, some 'X' factor, without discovery of which it is impossible to solve the problem. Let us therefore move ahead by trial and error so as to find a non-contradictory version that explains all the known facts.

Factor 'X'. Let me test yet another proposition. Perhaps an instantaneous leap, and not a protracted process, is the cause of the formation of a new ethnol group? We can only test that on examples from modern history, events that have been quite adequately described. Take the history of Latin America. The Spanish conquistadores were cruel in battle, but saw the Indians as worthy opponents and not as a 'lower race'. The surviving Indian chiefs were baptized and taken into their milieu, while the simple Indians were made peons on haciendas. So, over 200 years, the population of Mexico and Peru was built up; in the mountains, however, and in the tropical forests, pure Indian tribes survived. The slave-traders brought Negroes to America. The absence of racism led to the appearance of mulattos and samboes (a Negro-Indian cross). When, at the beginning of the nineteenth century, a struggle arose for independence from metropolitan Spain, occupied by the French, the majority of the leaders of the insurrectionary movement were not Spaniards but metises or mulattos.³⁹ General Bolivar himself said of this as follows in 1819:

We should present our people not as European nor as North Americans but rather as a compound of Africa and America than as an emanation of Europe; certainly as regards their institutions and by their character. It is impossible to rightly say to what human family we belong. Most of the natives were destroyed, the European mixed with the American and the African, and the latter mixed with the Indian and the European. We were all born from the womb of the

same mother, our fathers were different in origin and blood, were foreigners and differed visibly in epidermis.⁴⁰

And this people, taking shape before the eyes of historians, has proved very stable and dissimilar to other neighbouring peoples. The inhabitants of Venezuela and Colombia were copies of Spaniards in all their outward attributes—language, culture, religion, etc. Economically they only lost, replacing Spanish protectionism by dependence on British and North American trading companies. The war for independence was fought with such bitterness that it cost a million lives in a thinly populated country, as many as all the Napoleonic wars in densely populated Europe. But in the eyes of the insurgents all the victims were justified by their not being Spaniards and that they consequently should live separately. It is interesting that at the same time the Indians supported the Spanish government. So a crossbred origin did not prevent the creation of monolithic ethnol.

But was it so? For we know that among animals crossbred forms are often unstable and usually lack the specialized capacities of both parents, making this good in the first generation by heightened vigour, which often falls off in subsequent generations. The offspring of mixed marriages either revert to one of the original types (paternal or maternal), or die out, because adaptation to some one environment takes several generations to develop. It is a tradition, but a mixture of two traditions in one organism creates an unstable genotype.

So it happens in the majority of cases among animals, and possibly sometimes among people, but if that had always been so, not a single new ethnol would have arisen, and mankind, which has practiced mixed marriages from time immemorial, would already have degenerated in the early Neolithic. In actual fact not very many ethnic groups have disappeared from the ethnographic map, and the human race as a species is developing so intensively that the increase of population is now called a demographic explosion. Clearly, there is a factor that offsets the destructive influence of natural selection and the stabilizing role of signal inheritance or tradition. This X-factor should manifest itself in changes of behaviour and be perceived by people themselves as a peculiarity of the psychic structure. It is this attribute, consequently, that arouses and stimulates the process of ethnogenesis. By finding the X-factor, and disclosing the content of the unknown attribute, we shall clarify the mechanism of the process of each separate ethnogenesis and of the whole aggregate of them.

In order to achieve my purpose, I need an abundance of verified and strictly dated material from the universal history of mankind. If we process it by the techniques employed in the natural sciences we shall be able to get data for tackling my problem; at present, however, I shall limit myself to answers to puzzles that can be formulated as follows: (1) a new stereotype of behaviour cannot be invented, because if some crank set himself such an aim, he himself would all the same be behaving according to the old, accustomed stereotype, at best adapted to the conditions of the existence of the ethnic collective. To get outside the ethnos is the same as to pull yourself from a bog by the hair of your head; as we know, only Baron Munchausen was able to do that.

(2) Since a new stereotype of behaviour arises through peoples' instinctive activity, it is senseless to ask whether it is better or worse. There is no scale of comparison. It is simply different.

(3) But if it is impossible to break the everyday tradition of an ethnic image, and there is no need for anyone to want to do so consciously, it will obviously happen by virtue of a special coincidence of circumstances. What ones? That is what we have to find an answer to!

NOTES

¹See: G.E. Grumm-Grzhimailo. When the Mongols Split into Eastern and Western Branches, and Why. *Izv. Geograficheskogo obshchestva*, Vol. 16, Issue 2, 1933.

²I call historical fate a chain of events causally connected by their internal logic.

³Frederick Engels. *The Origin of the Family, Private Property and the State*. Lawrence & Wishart, London, 1941, pp 38-65.

⁴Augustin Thierry. Letter No. 2. *Lettres sur l'histoire de France*. Jouvett et C^{ie}, Paris, 1881, p 32.

⁵François Bernier. *Travels in the Mogul Empire (1656-1668)*. S. Chand & Co., Delhi, 1968, pp 200-238.

⁶Yu.V. Bromley. Ethnos and Endogamy. *Sovetskaya etnografiya*, 1969, 6: 84-91.

⁷N.Ya. Bichurin. *Sobranie svedenii po istoricheskoi geografii Vostochnoi i Sredinnoi Azii* (Digest of Information on the Historical Geography of Eastern and Central Asia). Compiled by L.N. Gumilev and M.F. Khvan. Cheboksary, 1960, p 638.

⁸The import of opium into China in the nineteenth century, for example, the demand having been initially created by drawing weak people into drug addiction. The sale of spirits to Canadian Indians for furs was similar.

⁹N.I. Konrad. *Zapad i Vostok* (West and East), Nauka, Moscow, 1966, pp 119-149, 152-231.

¹⁰A coefficient in the fact of a connection (in the cybernetic sense), for example, the measure of a father's care for his son.

¹¹See: Ludwig von Bertalanffy. General System Theory. A Critical Review. *General Systems*, 1962, 7: 1-20.

¹²A.A. Malinovsky. General Problems of the Structure of a System, and Their Significance for Biology. *Problemy metodologii sistemnogo issledovaniya* (Methodological Problems of Systems Study), Nauka, Moscow, 1970, pp 145-150.

¹³N. Rashevsky. Finite Sets. Essays in the General Theory of Biological and Social Organisms. *Issledovaniya po obshchei teorii sistem* (Studies in the General Theory of Systems), Nauka, Moscow, p 445.

¹⁴A.A. Malinovsky. *Art. cit.*, p 182.

¹⁵*Istoriya Itali* (A History of Italy), Vol. I. Nauka, Moscow, 1970, p 233.

¹⁶In saying 'begins itself' of a natural process I do not imply anthropomorphism, but simply employ an ordinary turn of phrase: for example, 'the stream cut a bed for itself and formed a meander'.

¹⁷*Pomor* (Maritime) is the name for Russians, who came originally from Novgorod, living along the coast of the White Sea and Barents Sea.

¹⁸These 'prospectors' or 'explorers' were gold-miners, fur-traders, etc., who organized and took part in the Russian penetration into Siberia and the Far East in the sixteenth and seventeenth centuries.

¹⁹A. Thierry. Letter No. 12. *Lettres sur l'histoire de France*, pp 169-172.

²⁰All West Europeans were called 'Franks' in the thirteenth century in the Near East.

²¹A.E. Bertels. *Nasir-i-Khosrov i ismailizm* (Nasir-i-Khosrov and Ismailism), Moscow, 1959, pp 202-247.

²²The population of the Near East who speak Arabic are now called Arabs. That is incorrect. The majority of the population of Syria, Iran, and North Africa are a mixture of ancient ethnol in the zone of contact. The descendants of the true Arabs are the Bedouins of Saudi Arabia.

²³Frederick Engels. *Dialectics of Nature*. Translated by Clements Dutt, with a preface and notes by J.B.S. Haldane, F.R.S. Lawrence & Wishart, London, 1940, p 164.

²⁴Jawaharlal Nehru. *The Discovery of India*. Asia Publishing House, Bombay, Calcutta, New Delhi, 1964, p 56.

²⁵Tamotsu Shibutani. *Society and Personality*. Prentice-Hall, Inc., New York, 1961, p 25.

²⁶*Ibid*, p 33.

²⁷*Ibid*, p 34.

²⁸*Ibid*, p 44.

²⁹J.B.S. Haldane. *The Causes of Evolution*. Longmans, Green & Co., London, New York, Toronto, 1932, pp 139-140.

³⁰*Ibid*, pp 128-129.

³¹*Ibid*, p 139.

³²W. Ross Ashby. *An Introduction to Cybernetics*. Chapman & Hall Ltd., London, 1956, p 136.

³³In introducing the concepts 'altruism' and 'egoism' I do not attach any qualitative value to them. 'Good' and 'bad' have no connection with them, as will be seen subsequently. The use of ordinary words as scientific terms is only justified by the need to help the reader understand the construction of the concepts as such. 'Altruism' is more exactly 'anti-egoism'.

³⁴ An established term but one that has no perspective without understanding of the problem.

³⁵ 'Mosaicism' suggests the existence of a structural articulation in the anthroposphere along the ethnic principle.

³⁶ R.F. Its. *Vvedenie v etnografiyu* (Introduction to Ethnography), Nauka, Leningrad, 1974, pp 43-46.

³⁷ The Time of Troubles (*Smutnoe vremya*)—a term signifying the events of the end of the sixteenth and early seventeenth centuries in Russia.

³⁸ A.N. Nasonov. '*Russkaya Zemlya*' i obrazovanie territorii drevnerusskogo gosudarstva (The 'Russian Land' and the Formation of the Territory of the Old Russian State), Izdatelstvo Akademii Nauk SSSR, Moscow, 1951.

³⁹ I. Lavretski. *Simon Bolivar*. Editorial Progress, Moscow, 1982, p 80.

⁴⁰ *Ibid.*, p 89.

THE ETHNOS IN HISTORY

in which the generally accepted ways of studying ethnic phenomena are set out and it is shown that the sought-for result cannot be obtained

Ideas about World History

Two aspects of world history. It is the job of any science to survey the subject it studies as a whole, and history is no exception. We consequently need to find a convenient standpoint for the survey and, with that, there arises a need for a theory that will guide practice, i.e. the choice of aspect. The aspect of study does not follow from some philosophical construction. It is dictated exclusively by practical considerations, and we class it in the field of the theory of science only because its choice is determined by the aim set at the beginning of an investigation and not by the gathering of material. My aim is to understand World History as the forming of one of Earth's envelopes, viz., the ethnosphere.

Two conceptions that long ago took shape in the theory of historical thought still exist in our day, viz., the world-historical and the cultural-historical. The first treats the history of peoples as a single process of progressive development more or less embracing all the regions inhabited by people. It was first formulated in the Middle Ages as the conception of the 'four empires' of the past (the Assyrian, Persian, Macedonian, and Roman), and a fifth, the 'Holy Roman Empire of the German nation', which, in the tenth and eleventh centuries, along with the Papal throne, headed the Catholic unity (Christianity) that arose in Western Europe at the turn of the eighth and ninth centuries A.D.

With this system of interpreting events, the consistent extension of territories subordinate to the imperial power was considered 'progress'. When, in the sixteenth century, the Reformation broke the ideological unity of Western Europe and undermined the political hegemony of the Hapsburg emperors, the world-historical conception held its ground and was simply formulated rather differently. Now 'civilization' was recognized as progressive, by which

was understood the culture of the same old Western, Romano-German Empire, the former 'pagans' and 'schismatics' being simply renamed 'savages' and 'backward' peoples. And there was even an attempt to call both 'unhistorical'. This system, rightly called 'Eurocentrism' in the nineteenth century, was perceived (often unconsciously) as self-explanatory and not requiring proof.

The cultural-historical conception was first proclaimed by Herodotus, who counterpoised Europe to Asia. By Europe he understood the system of Hellenic city-states, and by Asia the Persian monarchy. Subsequently, Scythia and Ethiopia had to be added, which were equally not like either Hellas or Iran; the list of cultural regions was later extended until the whole Oecumene had been assigned to cultural-historical regions. In the Old World, the Near East or Levant, India, China, the island cultural region of the Pacific Ocean, the Eurasian steppe region, Africa south of the Sahara, and the circumpolar region with rudimentary ethnai, were considered such, as a first approximation, in addition to Europe.

The main difference between the cultural-historical and the world-historical schools is the postulate that every cultural region has its own path of development, so that one cannot speak of the 'backwardness' or 'stagnation' of non-European peoples but can only note their special features. The major spokesmen of the cultural-historical school in the nineteenth century were Friedrich Ratzel, N.Ya. Danilevsky, and K.N. Leontiev, and in the twentieth Oswald Spengler and Arnold Toynbee.

Why I do not agree with Toynbee. I shall not go into the history of this matter, since that would be too great a digression. But one writer must not, for all that, be left out of account. Arnold Toynbee proposed a conception of the rise of 'civilization' based on use of geographical sources. In short it amounted to the following.

The unit of history was taken as 'society', which was divided into two categories—'primitive', which did not develop, and 'civilizations', of which 21 took shape in 16 regions. It was consequently assumed that two or three civilizations arose consequently in one territory; these were called daughters. Such were the Sumerian and Babylonian civilizations in Mesopotamia, the Minoan, Hellenic, and Orthodox Christian in the Balkan Peninsula, the Indian (ancient) and Hindu (mediaeval) in Hindustan. In addition, 'abortive' civilizations were distinguished in special sections, viz., Irish, Scandinavian, Central Asian Nestorian; and 'arrested'—Eskimos, Ottoman Turks, the nomads of Eurasia, the Spartans, and the Polynesians.

According to Toynbee, societies developed through mimesis, i.e. imitation. In primitive societies the elders and ancestors were imitated, which made these societies static, while in 'civilizations', creative personalities were imitated, which made for dynamic development. The main problem of history was therefore to discover the factor of dynamism; Toynbee, moreover, rejected racism. There remained the influence of the geographical environment, and Toynbee proposed a very original solution for it.

It is clear that if the geneses of civilizations are not the result of biological factors or of geographical environment acting separately, they must be the result of some kind of interaction between them.

Brilliance and creative capacity are thus regarded as a reactive state of the organism to outside stimulation; in that connection one of his chapters is headed 'The Virtues of Adversity'.

'Challenges' are divided into three sorts: (1) unfavourable natural conditions, for example the swamps in the delta of the Nile—a challenge for the ancient Egyptians; the tropical forest of Yucatan, a challenge for the Mayas; the waves of the Aegean, a challenge for the Hellenes; forests and frosts—a challenge for the Russians. (According to this conception, English culture should have been generated by rain and fog, but Toynbee did not claim that);

(2) the attack of foreigners, which could also be treated as a geographical element—partial migrations; so, according to Toynbee, Austria outstripped Bavaria and Baden in development in its time because it was attacked by the Turks; but the Turks first attacked Bulgaria, Serbia, and Hungary, and they responded to the challenge by capitulation, while Austria was defended by the husars of Jan Sobieski, whom the Turks at that time did not challenge (the example speaks rather against the conception than for it);

(3) decay of the preceding civilizations—a challenge they had to fight against; thus the collapse of the Hellenic-Roman civilization allegedly 'challenged' the Byzantine and West-European civilizations as a reaction to the perversion of the ancient Greeks. That, too, could be classed as a geographical condition, if we allow for the time co-ordinate (change of biocoenosis), but the depravity in Byzantium, alas, was no less than the Roman, while more than 300 years lay between the fall of the Western Roman Empire and the creation of viable feudal kingdoms. The reaction was rather delayed.

But the most important conclusion from this is that man's relation with the landscape and relief is not resolved by Toynbee's

conception, but confused. The thesis that a harsh nature stimulated man to heightened activity is a version of geographical determinism on the one hand, and on the other hand is simply untrue. The climate around Kiev, where the old Russian state took shape, was never harsh. The statement that domination of the steppes required so much energy from the nomads that it left them nothing, shows Toynbee's ignorance and lack of imagination.² The Altai and the Onon forest, where the Turks and the Mongols took shape, are spa resorts. If the seas that washed Greece and Scandinavia were 'challenges', then why did the Greeks only respond to it in the eighth to sixth centuries B.C., and the Scandinavians in the ninth to twelfth centuries A.D.? In other periods there were no victorious Hellenes, nor madly rapacious Phoenicians, nor terrible Vikings, but there were sponge-divers or herring-catchers. The Sumerians made an Eden out of Mesopotamia, 'separating the water from the land', but the Turks damaged everything so much that there was swamp again there, although, according to Toynbee, they should have responded to the challenge of the Tigris and Euphrates. It's all not true.

The geographical classification of civilization by regions looks no less arbitrary. Toynbee counted the Byzantine and Turkish Empires in one civilization only because they were located on the same territory, the Turks, and not the Greeks and Albanians, therefore being declared 'arrested'!

The Kingdom of Judaea, the Achaemenid Empire, and the Arab Caliphate come into Syrian civilization, but Sumer and Babylonia are divided into mother and daughter. The criterion of classification was obviously the author's will.

I have dwelt in such detail on this subject because I consider it necessary to show how easy it is to compromise a fruitful scientific idea by weak arguments and unsuccessful application of an ill-considered principle. I have deliberately not touched on Toynbee's sociological constructions although they contradict the chronology and real course of events no less. But this will be clear to most readers, although many still take the geographical conception of 'challenge and response' seriously. And it is very regrettable that, after such experiments, there is always a tendency in general to refuse to allow for and examine the data of geography, tacitly taking nature as a stable quantity that does not influence the historical process. The development of an arbitrarily selected postulate by way of speculative constructions drives science up a blind alley.

Blind alleys. So, both approaches have certain advantages and major shortcomings. The latter are particularly palpable for the development of my theme. From the standpoint of the world-historical school, for instance, the Turko-Mongolian peoples and their specific nomadic culture cannot be counted as eastern civilizations or put into the category of 'savages'. They consequently drop out of the field of view of theoretical historians. But since the Turks and the Mongols made themselves weightily felt in the history of humanity, the attempts were repeatedly made to treat them as the 'barbarian periphery' of China, Iran, and Byzantium, which has distorted the picture so through the very posing of the problem that it is simply not suitable for scientific perception. Blind alley!

On the other hand, the cultural-historical school, which finds a place for the role of Turks and Mongols in the history of mankind, is unable to provide an explanation of the inner patterns of their historical development because these patterns are not only local but also are variants of the universal patterns. And without allowing for the general, the particulars are also incomprehensible, because they are not comparable and are incommensurable with such an approach. Unjustified gaps arise in understanding of the history of mankind. Also a blind alley!

Why I disagree with N.I. Konrad. But the third path may perhaps prove correct, viz., to take the rational kernel from each conception and join them together so as to get a maximum approximation to the aim. The eminent Soviet historian, N.I. Konrad, for example, suggested noting transition periods leading from one formation to another, namely: (1) the era of the transition from ancient society to mediaeval—Hellenism; (2) the era of the transition from the Middle Ages to modern times—the Renaissance; (3) the era of the transition from modern to recent times—the middle of the nineteenth century. As an indicator Konrad cites the history of literature, viz.,

each (of the three epochs) is opened by a literary work of genius, that heralds its onset. The first was heralded by St. Augustine's treatise *The City of God*, the second by *The Divine Comedy*, and the third by *The Communist Manifesto*.³

The author of the new conception is very consistent. He looks for analogous epochs in the development of the culture of extra-European countries which he considers neither inferior to nor culturally dependent on Western Europe.

The transition from antiquity to the Middle Ages among the Chinese and the Iranians [he writes] was also accompanied with a revolution of minds ... which was generally called Taoism in China and Manichaeism in Iran. There was also an external factor involved here: a system of ideology coming from outside. In China it was Buddhism, in Iran Islam.

An epoch of 'Rebirth' or 'Renewal' was also traced. In China that was the eighth century A.D., in Central Asia, Iran, and North-Western India the ninth century, and finally in Italy the thirteenth century.⁵ The third transition period was not discussed, correctly, because it is not completed.

I have selected this place from a big book only because the author's idea is expressed here most vividly and clearly. In other essays Konrad not only distinguished transition periods but also stable forms of social existence that he called by the established terms—antiquity, the Middle Ages, and modern times.⁶ He saw the main trend of history in the consolidation of peoples and extension of the area of culture, while at the same time recognizing the polycentric character of the genesis of world civilization and the existence of local features in the development of peoples.⁷ It seemed the way out of the blind alley had been found, but let us look more closely at the fundamental side of the thesis I have set out here.

The chronological incommensurability of the transition periods in Konrad's conception strikes the eye. The epoch of Hellenism began in the fourth century B.C. and in fact coincided with a crisis of the antique world outlook. Konrad brings this 'transition period' up to St. Augustine, i.e. to the fifth century A.D. Its total length is around 900 years.

The age of the Renaissance in Italy was packed into 150 to 200 years, and the third transition period into half-a-century, which involuntarily suggests the thought that the author suffered an aberration of perspective, i.e. phenomena close to him seemed more significant to him than remote ones. It is enough to compare Hellenism with the Renaissance to show that they were incommensurable and, even more, that they were magnitudes of a different order. Let us try and examine the problem again, without drawing on new evidence for the present, but limiting ourselves to a comparison of old, indisputable data with the new, original idea. If the latter is true, coincidence will be inevitable.

About Hellenism. From 336 B.C., i.e. from the moment Alexander the Great smashed the hegemony of Thebes and crushed the freedom of Athens, the majesty of Persia, the independence

of India and, with the founding of Alexandria, the ancient culture of Egypt, to the composition of *The Divine Comedy*, the following happened.

In Iran, after a short Macedonian occupation, Parthians arrived from the Aral steppe, who were fascinated at first by the brilliant Hellenistic culture, but were later attracted by the profundities of Zoroastrianism (250 B.C. to 224 A.D.). Iranian reaction later set in; in our days it would be called nationalistic. Ardashir I broke the hegemony of the aristocracy, and relied on an alliance of the petty nobility (*dihaans*) and clergy (*mobeds*), employing the reprieved Parthian aristocrats as cavalry.

At the beginning of the sixth century A.D. the grandee Mazdak siezed power and began to exterminate the nobles and clergy, who both represented the most intellectual part of the population. The revolution of Khosrov I Anushirvan in A.D. 530 put an end to the reform and the excesses associated with it, but brought the soldiery to power, in the literal sense of the term, because the professional soldiers received day-wages. The soldiers' leader Bahram Cobin gained the throne in A.D. 590, but the whole civilian population rose against him and he was defeated.

The next period (A.D. 591-651) was one of steady decline of culture and of the state system until the Arab conquest, which entailed the emigration and death of all the literate and educated Persians, after which a new people took shape, with a new culture and even a new language.

During the period described there were five changes in the sphere of culture, each of which was equal in significance for the system, in this case Iranian culture, to the Italian Renaissance, although unlike it in genesis, character, and consequence: (1) the Hellenization of the Parthian steppe-dwellers, i.e. their acceptance of an alien civilization; (2) the Iranization of the Parthian nobility—an attempt at a rapprochement with their own people; (3) the Zoroastrian victory of A.D. 224-226 over the Parthian aristocracy—an alliance of throne and altar; (4) Mazdakism; and (5) the reaction of Mithraism, because the Armenians called Bahram Cobin 'he who worshipped Mithra, the mutineer'. And on that background the breath of Christian and gnostic ideas is hardly noticeable, as they affected an insignificant part of the refined and unstable intellectuals.

No! I simply cannot believe that this thousand-year period of tense creative life was just a transition between the Macedonian and Arab occupations. For Iran this Parthian-Sassanid period was equivalent not to the Italian Renaissance but to the whole Romano-

German culture of Western Europe from the Carolingians to the Bonapartes. A thousand years is a thousand years, although the cultures compared were not at all similar to one another. But it is this 'dissimilarity' that is, like similarity, one of the postulates of Konrad's conception.

In Rome Hellenism can be counted from one of two dates: (1) from the epoch of the Twelve Tables, when the group of exiles who had settled on the seven hills, organized themselves on the model of the Greek *polis*. But if so, then the whole of Republican Rome comes into this; obviously this date is not suitable as the beginning of a transition period. (2) The cultural Hellenization of Rome is usually ascribed to the activity of the circle of the Scipios in the second century B.C. That is so, of course, but Konrad puts the Roman Republic into the consolidation of the slaveowning formation and not into the transition period. Consequently, there remains only the age of the Empire, characterized by Konrad as 'the time of its zenith and at the same time decay', for the 'transition period'.⁸ Let it be so.

But if so, then we can and must distinguish several cultural and, at the same time, socio-political periods in it, each equivalent to the Italian Renaissance. Equivalence is asserted, I repeat, only for their significance for contemporaries, and by no means for similarity of the character of the phenomena.

The Romans themselves by no means regarded the republic of the second and first centuries B.C. as a finished political form. From the murder of Tiberius Gracchus in 130 B.C. to the death of Marcus Antonius in 30 B.C., Rome did not know peace and quiet. Civil wars so sapped the vitality of the Roman Senate and people that they were glad of any firm authority.

The 'golden mediocrity' of Octavian Augustus was a slogan of political stabilization, consolidation of military power, and turn to the past for edifying examples. That system maintained itself until the death of Marcus Aurelius, i.e. around 200 years. If we regard the activity of Han Yu and other Confucianists as the 'Rebirth' in China, then the Plinys, Titus Livius and Suetonius are rightly and consistently characterized as the 'Rebirth of Antiquity' in Rome itself. Well then, so we agree with the term.

The second period was Rome's rapid assimilation of Asian cults. There, from the third century A.D., Isis, hidden by the veil, Hermes Trismegistos, Cybele, Magna Mater, the charmer Astarte, ruled minds, and finally the soldier god Mithra, the unconquerable Sun, won over all. From Aurelian to Julian the Apostate, Mithraism was the state religion and official world outlook of the Roman Empire.

That revolution in culture was much more significant than humanism and even Reformation. For the Italians and Germans remained good Christians in the sixteenth century, having changed only their aesthetic and political notions, and even them not radically.

But the third shift, which embraced the whole Mediterranean in the first to fourth centuries A.D. was even more grandiose. It is usual to link it with the spread of Christianity, but we thereby lose sight of the fact that Christianity was only one stream of the flood of new ideas conquering the Roman Empire. Simultaneously with the Christians the Egyptian gnostics Valentinus and Basilides, who cursed the Matter, were preaching, and the Syrians Saturninus and Mani, who equated the elements of Good and Evil, the Ophites who esteemed the wisdom of the Serpent, the opponent of the evil demiurge Yahweh, the Marcionites, who denied the holiness of the Old Testament, the Origenists, who asserted the symbolic interpretation of the Old Testament, and finally the Neoplatonists, who proclaimed the supreme monism—the fullness of everything that exists—the Divine Pleroma. These proved closest of all to the Christian theodicy of St. Basil, and of Gregory of Nazianzus, and were furthest of all away from antique Platonism in spite of their taking Plato's name for their original doctrine. Konrad subtly remarks that

the revolution of minds began and developed in the Roman East, but it embraced as well the Graeco-Roman part of the Empire, in which its own crisis of the old established world outlook was proceeding.

That is just, but then this chaos cannot be treated as a transition period for the history of Europe's culture. In fact, what relation did Christianity or Manichaeism have to the rationalistic arguments of Seneca or the bloody mysteries of Aurelian in the Mithraea or the orgiastic entertainments of Heliogabalus? The new creative stream of the world outlook equally rejected both the one and the other. It swept aside the disintegrating antique thought and did not continue it. In other words, there was no 'transition period' but a break with old tradition and the creation of a new one.

The Christian and Manichaean churches displayed a quarrelsome disposition that astonished contemporaries but stemmed logically from the feeling of a complete break with the antique past. Even when the Emperor Constantine decided to yield all the positions of paganism, only one dilemma faced the Christian community, namely whether to admit the ruler of the world to it as a deacon (*diakonos*) so that he would have a say in church matters or

let him remain a layman, as the Carthaginian Donatus demanded, saying 'What business has the Emperor in the Church'. And on that background, already in the fifth century A.D., when the Empire was being torn to pieces by barbarians, St. Augustine lived, created, and acted, first as a Manichaean and later as a Christian, a talented writer and great disputant. One must note that his main ideas were a presage of heretical thought rather than of Catholic. His thesis of predetermination, which actually annulled the Catholic dogma of man's free will, shifted all responsibility for the ugliness that occurred in the world onto the Creator. This thesis of St. Augustine's was employed and developed by Calvin a thousand years later, but in the Middle Ages it was disregarded.

Unlike Dante, who did not dispute the ideas existing in his time but was very dissatisfied with his contemporaries, St. Augustine expended the full force of his talent on a polemic both with his former fellow-thinkers the Manichaeans, and with the humane conception of the Irish monk Pelagius. The latter preached that the sinfulness of man was the result of his wicked actions, and consequently that good pagan was better than an evil Christian. St. Augustine put forward a thesis of original sin and so declared all pagans inferior, and theoretically justified intolerance. That idea did not get wide dissemination in the next five centuries, while Dante's verses were hailed in his own lifetime, and brought him deserved fame. No, there is no similarity between St. Augustine and Dante Alighieri either in historical role, response, or personal qualities, and the periods in which they lived and worked were even less similar. If anyone was similar to Dante, it was the great poet and denouncer of scandals, St. John Chrysostom. But if we accept that correction, the next step in the argument will take a different path. And this new path, incidentally, seems more fruitful even if it looks rather unexpected.

Re: Byzantium. Remember that the trend I have described, which can be called Early Christian, or arbitrarily, Byzantine (by no means in the political sense, but only in the 'cultural' one) is recorded in secular history only in the middle of the second century A.D., i.e. 150 years later than in the history of the Church. It was then that the famous debate between Roman philosophers and the Christian apologist Justin, who, having won the dispute, paid for victory by a martyr's death, took place. If we begin counting from that date (which is convenient because it does not give rise to doubts or disputes), then it turns out that the new trend of thought had spread by the end of the fourth century A.D. (after the apos-

tasy of Julian) not only throughout the territory of the Roman Empire, but also beyond it. It yielded offshoots: a western in Ireland, a southern in Ethiopia, an eastern in Central Asia, a northern in Russia, or rather among the Goths of the Dnieper Valley.

The peripheral Christian cultures themselves, not linked politically with the main stem of culture, the Byzantine Empire in the proper sense of the term, felt as much a unity as, say, Iran, already described, as the Graeco-Roman world, and subsequently West-European *Chretienite*, in spite of the fact that Nestorianism predominated in Transeuphratian Asia and Monophysitism in Syria, Armenia, and Africa.

Byzantine culture had its period of 'rebirth' of Hellenist antiquity when Greek ousted Latin from public administration (under the Emperor Mauricius), its Reformation—iconoclasm, and its epoch of enlightenment—under the Macedonian dynasty. This culture became extinct almost simultaneously: Ireland fell in the thirteenth century, the Central Asian Nestorians were routed, Constantinople fell prey to rapacious Crusaders, and Abyssinia was converted into a mountain fortress surrounded by Gallas and Somalis who had adopted Islam. The hectic efforts of the Nicaean Empire to hold its position dragged out the agony for a hundred years, but already in the middle of the fourteenth century the Paleologues were forced to accept union, which meant subordination to the West, i.e. a cultural entity was again formed that arose on the basis of Charlemagne's conquests. It is this entity that it is customary in European historiography to regard as a prolongation of antique culture (which is even reflected in the compilation of school textbooks), but it would seem more correct to regard the thousand-year period separating 'Antiquity' from its 'Rebirth' as an independent segment of the history of culture than a transition period, the more so that Catholic knights and prelates did not inherit the achievements of Byzantine culture in its Greek and Irish variants, but simply laid them waste.

If that is so, then the Rebirth or Renaissance in Europe must be referred to the same line of the pattern and sequence of events as the Crusades which preceded it and the colonial conquests that followed it. That is how it was!

From the moment of its rise West-European culture strove to expand. The descendants of Charlemagne's barons subdued the Western Slavs, the Anglo-Saxons, the Celts, drove the Arabs from the Iberian Peninsula, and carried war against the Muslims to the basin of the Indian Ocean. The descendants of the mediaeval burghers annexed America, Australia, and South Africa. Both con-

quered India, Tropical Africa, South America, Polynesia, etc. It was an expansion in space. But the humanists? They were driven by the same stimulus of acquisitiveness. But their expansion developed in time. They set themselves the aim of occupying the past, which was not theirs but someone else's. And they achieved their aim. World History on a philological basis became the fruit of their efforts—a phenomenon that has no analogues in other cultures, because history is everywhere, as a rule, a description of one's own forebears, i.e. an absolutized genealogy. But if that is so, then the 'Chinese Renaissance' should have differences of principle from the European, and the features of similarity should be considered fortuitous coincidences. Konrad holds the opposite point of view; to answer this cardinal problem we must turn to the history of Eastern Asia.

Re: China. For a start let us note that there are two ethno-relief regions in Eastern Asia: an agricultural one—China; and a nomadic—Central Asia and the Tibetan plateau. In spite of China's dense population and the small numbers of the steppe-dwellers (Turks and Mongols), these cultural regions have interacted on equal terms throughout the whole historical period. Unless this unceasing struggle is taken into account the history of Asia will always be interpreted incorrectly.

In the last century there was a never-disputed opinion that Chinese culture was stable or stagnant, and development with rises and falls was the achievement of Western Europe. That conception is an example of the aberration of distance by which the sun, for example, may seem smaller than a pig's snout. When Chinese history is studied in adequate detail, this aberration disappears like smoke, and it becomes obvious that breaks of tradition and epochs of obscurateness proceeded uniformly in East and West. The discreteness of historical development was noted by two great historians of antiquity, Polybius and Ssu-ma Ch'ien, and both suggested an explanation of the observed events starting from the science of their time. Ssu-ma Ch'ien wrote his *Records of the Historian* in the first century B.C. but he noted a period that was 'antiquity' for him, i.e. the past with a broken tradition. For Ssu-ma Ch'ien antiquity was the epoch of the first three dynasties—Xia, Yin, and Zhou. After the fall of the Zhou there followed a political and cultural disintegration. 'The path of the three kingdoms was like a cycle: it finished and began again.'¹⁰ That does not mean, of course, that the Han dynasty literally repeated antiquity. Rather it proved to be a quite independent phenomenon with its own local features. In the

opinion of Ssu-ma Ch'ien, it was not the actual reality that was uniform, but the inner pattern of the phenomena, which he considered a natural law of history.

The pattern discovered by the historian not only explained the past but also made it possible to forecast. While archaic China disintegrated as a consequence of inevitable inner rhythms, then the China contemporary for Ssu-ma Ch'ien, but ancient for us, i.e. the Han Empire, could not avoid the same fate. Ssu-ma Ch'ien could not, of course, predict the details of the death of his country, but the result would be identical. And so it was. In the third century A.D. civil war bled China white, and in 312 the capital of the Celestial Empire was captured by the attack of small emergency reinforcements of Hsiung-Nu, who then subjugated all the time-honoured Han lands in the basin of the Huangho. The most determined Chinese patriots fled to the non-Chinese frontier, to the basin of the Yangtse-kiang, and the agony of the old Chinese culture lasted there for around another 250 years, i.e. almost twice as long as the analogous agony of Rome. But in the homeland of the Chinese people nomads and mountaineers, Hunni, Tabghatchi, and Kyany (Tibetans) were rampant and wreaked havoc.

A new upswing began in China in the sixth century A.D. The leader of the Chinese ultrapatriots, the general Yang Jian made short work of the descendants of the degenerating nomad princes and founded the Sui dynasty. That was the dawn of the Middle Ages in China, the setting of which came in the seventeenth century when the Manchus conquered both the troops of the Ming dynasty and the peasant levies of the Li Jie-cheng uprising. And then began a period of decline that unobservant European scholars considered China's permanent state and christened 'stagnation'. The forecast of Ssu-ma Ch'ien's conception was confirmed.

But there was a special feature in the East, compared with the West, that ensured a relatively great continuity of cultures, namely hieroglyphic writing. In spite of its inadequacy compared with alphabetic writing, it had the advantage that the semantemes continue to be understood even with a change in the phonetics of the developing language and with a change of ideological notions. The rather small number of mediaeval Chinese who were literate read Confucius and Lao-tzu and felt the charm of their thoughts much more than mediaeval monks studying the Bible, because words change meaning in accordance with the translation and the intonation and the erudition of the reader, and even depending on his system of associations. Hieroglyphs are as unambiguous and single-valued as mathematical symbols.

The ruptures between cultures within China were therefore rather less than between the antique (Graeco-Roman) and mediaeval (Romano-German) cultures, or between the Middle Persian and Arabic, i.e. Muslim, etc. That was reflected both politically and ideologically in the history of China. It is particularly important that it was this external feature of similarity that led all historians into error who have postulated the stagnant character of China, taking the conservative character of hieroglyphic writing for it. The history of China proceeded no less intensively, in fact, than the history of the countries of the Mediterranean basin. But it is necessary, in order to see this passionate intensity of the life of the ethnai that rose and declined on the territory of China, to break away from admiration of objets d'art and the zigzags of abstract thought, and to trace the thousand years' war on the boundary of the Great Steppe and China. But that can only be done specially.

Thoughts on Ethnic History

The indeterminacy principle in ethnology. All the examples cited above would seem to prove the correctness of the cultural-historical school, but there is one detail in them themselves that shows the correctness of the opposite point of view. For all the 'cultures' I have analyzed developed, in spite of local peculiarities, and perished so uniformly that one cannot help seeing a general dialectical process in it.

But if so, then we not only have not resolved the problem posed but have even complicated it. Are we really once more up a blind alley? No. There is a way out, and we shall discover it as soon as we turn to analogies with other sciences. From the seventeenth century physicists have debated whether light consists of particles (corpuscles) or represents waves in the ether. Both conceptions had such serious shortcomings that neither could come out on top. The dispute was only resolved in the middle of the 1920s with the development of quantum mechanics. Modern physicists consider light to be neither a wave nor a particle, but both simultaneously, and it can manifest both groups of properties. The well-known indeterminacy (or uncertainty) principle, according to which the value of only one of a pair of connected variables, for example energy and time (or impulse and co-ordinate) can be established, and not both together, was formulated on this basis.

There are also two forms of motion in ethnic phenomena—social and biological; consequently the significance of one aspect or

other of a complicated phenomenon can be established by some means or another, or rather the precision of the meanings will mutually exclude one another. Having noted that, let us apply the indeterminacy principle to our material.

First of all, let us change the aspect. Instead of pooling the methods of both schools, let us delimit their sphere of application. Directly observed historical phenomena will clearly be grouped by the cultural-historical principle, while the world-historical scheme will be a Procrustean bed for the facts.

But it is also clear that the essence of phenomena inaccessible to visual observation will come within the competence of the world-historical conception when local features are sifted out, and the discreteness (discontinuity) of development noted and demonstrated by the cultural-historical school, will be simply one property of a single but very complex process.

Then let me change my approach. In the last century in Russia history was studied in two ways: in grammar schools together with geography, and in the universities with philology. In our day the second method of perception has gained the ascendancy, study of sources has begun to be made the keystone. But there is a great danger in that, because the historian risks becoming a prisoner of the author of the source, i.e. he will simply paraphrase what he has read, trying to convey the content as literally as possible. But the ancient author was guided by ideas unacceptable to us, and his readers, having a different system of associations from us, did not understand him as a reader of our day would, which means that if Herodotus or Rashid al-Din were writing for us they would put the same ideas differently. And with a literal translation of the text we do not catch the meaning for the sake of which the text was written. And, finally, the author of an ancient source naturally left out banal truths well known in his day. But it is they that are not known and are of particular interest to us. Therefore every source is a cryptogram for posterity, and restoration of its true meaning is a difficult matter, not always achieved. Suffice it to recall the disputes around *The Lay of Igor's Host*. And there is no guarantee that several more hypothetical interpretations will not be added to those that now exist just as justified and convincing. In short, the study of sources is the best means, for my posing of the problem, of digression so as never to return to the posed task, i.e. comprehension of the historical process.

The grammar school method is a different matter. Take from the sources what is beyond dispute, i.e. the bare, mute facts, and place them on the canvas of time and space. That is how all natural

scientists act, drawing material from direct observations of nature. And when it turns out that the facts quarried from texts have an inner logic, are governed by statistical patterns, are grouped by degree of similarity and difference, it becomes possible thereby to study them by comparative methods.

That approach is reasonable because it makes it possible to comprehend an already found standard of historical existence—historical entity, but of what? I can now answer—the chains of events and phenomena in which the connections between the links are realized through causality. Direct observation shows that these chains have a beginning and an end, i.e. it is a flash or an outburst with inertia that fades through the resistance of the medium. Here is a mechanism that explains all the indisputable observations and generalizations of the cultural-historical school.

But where do the flashes come from, and why are inertial processes so surprisingly like one another? The world-historical conception should answer that but it, alas, can only describe it by the means that historical science possesses. Description is the limit for humanitarian science, and interpretation by way of speculative philosophy does not satisfy anyone in our day. It remains to pass wholly to the basis of the natural sciences and to ask about the filling of the concept 'culture' and about its material substance, which undergoes the described changes.

Two systems of reference. The first point that comes to mind as the simplest and most intelligible explanation of the observed phenomenon is to try and compare it with social formations based on one mode of production or another. That is the road Prof. Konrad took, defining the following proposition:

The slaveowning formation is characterized not by slavery as such but by a social system in which slave labour plays the role of the mode of production that determines the economic basis of social existence at a given stage of a people's history.¹¹

That stage he compares directly with 'antiquity' or the ancient history of the whole world.

The concept 'Middle Ages' is defined with the same ease as the 'period of the forming, consolidation, and flourishing of feudalism', and once again for the whole Oecumene. What is new in this is only the attempt to extend the socio-economic categories to the sphere of the regularities or causal connections of the chains of events. That is wrong, and here is why. The theory of historical materialism

was created especially in order to reflect the progressive development of society as a spiral, and not in order to interpret changes of dynasty, military successes, the spread of epidemic diseases, or the nuances of religious conceptions.

The method of advancing from the abstract to the concrete is simply the way in which thinking assimilates the concrete and reproduces it as a concrete mental category.¹²

Social development has its logic, and the succession of events its. Between the two systems there are interconnections and even feedback, but it is its existence that shows that there is not one frame of reference in it, but at least two. So it is often observed that one 'culture' lies in two or three formations, and sometimes in one, as I showed above when analyzing so-called 'transition periods'. Besides, a 'culture' is much greater than a formation, which also points to the incompatibility of these concepts. The main thing, though, is that both systems of reference do not contradict each other but supplement one another.

Let me explain. The features of the slaveowning formation noted in Egypt, Babylonia, Hellas, India, and China provide grounds for counting these societies in one taxonomic group, but in no case does it make it possible to affirm their genetic continuity or real living interconnection. But as 'culture', each of the countries enumerated interacted with neighbours that were at quite different levels of social development. Such slaveowning centres as Athens and Corinth, for example, constituted a single whole with agricultural Thebes, cattle-raising Aitolia and Thessaly, and even with Epirus and Macedonia, where there was a disintegrating gentile system. Taken all together, that was Hellas, which the Greeks themselves considered an entity. But an entity of what?

Let me leave this matter open, so as to answer it at the end of my investigation, and limit myself now to noting the difference in frames of reference—social and ethnic—and return to the problem of cultural processes, because there has repeatedly been a tendency to seek the answer to problems of ethnogenesis in the history of material and spiritual culture.

The history of culture and ethnogenesis. Since the activity of an ethnos is embodied in the products of its hands and brains, i.e. in culture, it can be supposed that, by studying the history of local cul-

tures, we will at the same time understand the history of the ethnoi that created them, and so, too, ethnogenesis.

If that were true, the investigator's task would be very much simplified but, alas, although there is a link between ethnogenesis, the history of ethnoi, and the history of cultures, it is complicated by attendant phenomena, different in all cases. Let me begin with the history of culture as obvious without the use of special techniques of historical synthesis.

Do the concepts of culture and ethnos, or even superethnos, coincide? As a rule they do not, with the exception of certain cases that confirm the rule. This will be seen most clearly from a well-known example, Hellas.

The culture of the Hellenic *polis*, both of mainland Greece and of the colonies, had already spread in the classical period of the sixth to fourth centuries B.C., to the non-Hellenic lands, for example, Macedonia, which took on, under Alexander, the role of leader and defender of the 'Hellenic cause'. The subsequent spread of Hellenic culture embraced countries and peoples of the Near East, Egypt, Central Asia, and India, conquered by the Macedonians, and also Latium, which borrowed Hellenic culture from Athens. This is so-called Hellenism, i.e. the formation of a grandiose superethnos.

But by no means all the ethnoi that accepted Hellenic culture were part of this superethnos. The Parthians learned to speak Greek, staged the tragedies of Euripides at the court of their kings, fortified their towns according to the plans of Hellenic architects, and adorned them with statues like Athenian and Miletian ones, but remained 'Turanians',¹³ masters of Iran, enemies of the Macedonians, i.e. the Syrian Seleucids. Carthage was organized on the type of the Hellenic *polis*, but its inhabitants, in contrast to the Syrians and Anatolians, did not become Greeks. But the Romans, having conquered Hellas, became the heirs and guardians of its culture, while preserving their own ethnic features as a local peculiarity. And they passed the Hellenistic culture on to all their provinces and, after the fall of Rome's political power, to the European Roman and in part German ethnoi.

Thus, by studying the history of culture we see an unbroken line of tradition constantly overlapping ethnic boundaries. The descendants of the Germans and Slavs assimilated geometry, the idealist philosophical systems of Plato and Aristotle, the medicine of Hippocrates, the art of building (classicism), theatre, literary genres, legal norms (Roman law), and even mythology, although

they forced the ancient gods to appear in operetta rather than mysteries.

But of course the Hellenes and the Romans have long since not existed, which means that the great culture survived the *ethnos* that created it. The incompatibility both in space and in time is obvious.

Is it legitimate, however, to employ the term 'survival' of a culture, in spite of all its customary nature? A culture is the creation of people, be it items of technique, masterpieces of art, a philosophical system, a political doctrine, a scientific conception, or a legend about ages past. Culture exists, but does not live, because, without the injection of peoples' creative energy into it, it may either be preserved or disintegrate. But this 'non-living' influences the consciousness of its creators, models fanciful forms in it, and then churns them out until their descendants cease to be receptive of them. It is customary to call this 'degeneration', and not liberation from outmoded standards of old world outlooks that have lost their significance, or have compromised themselves like the Olympian gods in the Roman Empire. No one any longer believed in those gods in the first century B.C., although their statues stood at all crossroads. Hellenes and Romans, who observed various omens, and equated their generals with gods exclusively from toadying to force and power, were in fact cynics and hypocrites; nevertheless they kept up the empty pagan temples because their fear of losing their culture was stronger than their contempt for it. People guessed, by some sixth sense, that their culture was a burden but that it was impossible to live without it. That is why very deep decline did not reduce the level of culture to nought. And with the course of time a new upswing began – not of the old culture, but of a new *ethnos* that picked up old fragments from Earth, and adapted them to its needs. That is a fine schema of the transformation of culture.

But *ethnogenesis*? It is a condition without which it is impossible to create or revive a culture. For cultures are the work of peoples' hands, and in our world there is no person without an *ethnos*. The creation and development of an *ethnos*, i.e. *ethnogenesis*, is like connecting a current up to a motor that had died away, after which it begins to work again.

Ethnogenesis is a natural process and consequently independent of the situation that had been established through the moulding of a culture. It can begin at any moment, and if there is an obstacle in its way from active cultural entity, it will smash it down or be broken on it. If it begins when 'the ground is fallow', the rising *ethnos* will create its own culture as its mode of existence and develop-

ment. In both cases the break or gap is a blind force of natural energy uncontrolled by any consciousness. Such an answer to the problem follows without contradiction from the principles set out above.

But there is another point of view.

The social factors that shape an ethnos, including ethnic self-awareness, lead to the appearance of an attendant population, i.e. before us is a picture that is directly opposed to that which L.N. Gumilëv presents.¹⁴

So the discussion continues about whether being underlies consciousness or, on the contrary, consciousness underlies being. With such a posing of the question there is, in fact, matter for dispute. Let us examine it.

Every scholar has the right to adopt any postulate for his logical construct, even one according to which the real being of an ethnos is not only determined but also generated by its consciousness. A believing Christian or a materialist, it is true, will be unable to accept his opinion. Since the act of the creation of material reality is ascribed to human consciousness placed above the Creator or in his place, a Christian cannot agree with that. And materialist philosophers do not accept the thesis of the primacy of consciousness.

But even an empirical scientist has no right to agree with the thesis put forward above, because it infringes the law of the conservation of energy. For ethnogenesis is a process that is manifested in work (in the physical sense). Campaigns are undertaken, temples and palaces are built, there is a reconstruction of the landscape, disagreements within and outside the system being created are suppressed. And to do that work, energy is needed, very ordinary energy, measurable in kilogram-metres or calories. To consider that consciousness, even ethnic, can be the generator of energy means to admit the reality of telekinesis, which is out of place except in make-believe and flights of fancy.

Let me explain. The stone blocks at the top of a pyramid were not raised by ethnic self-awareness but by the muscle power of Egyptian workers on the principle of 'heave ho!' And if the rope was pulled by Libyans, Nubians, Canaanites, besides Egyptians, things were not changed. The role of consciousness, and in this case not ethnic consciousness but the personal consciousness of the engineer-builder, lay in the co-ordination of the forces at his disposal, and the difference between the management or control of a process and the energy by which it works is obvious.

The combination of various ethnogeneses with social processes on a background of the different cultures inherited from times past, and of the terrains that give people food, also diverse, creates ethnic histories that are fantastically interwoven with one another. Ethnic history, unlike ethnogenesis, is a multi-factor process that experiences various effects and reacts sensitively to them. At the same time ethnic history is not so obvious as the history of cultures and countries, social institutions and class struggle, since the events associated with a change of phases of ethnogenesis are not recorded in sources.

In other words, ethnic history is a historical discipline that is closer than any other to the geography of the biosphere, which determines the diversity that the French scholar René Grousset has noted. He compared the historical panorama of the middle of the twentieth century with the starry firmament in which we observe stars that have long been extinct but whose light is only now falling on Earth, and we do not see supernovae whose rays are still speeding in cosmic space and are consequently not observable by terrestrial observatories.

Continuing the resemblance, Grousset considered the countries of Islam to be analogous in age to the European fourteenth century, the 'Trecento'; he compared the Germans' invasion of France in 1940 with the campaigns of Alaric and Gaiseric in the fifth century A.D.; and he called the Japanese armies samurai decked out in modern uniform.

But if, even in the twentieth century, in conditions of all-equalizing urbanist civilization, the French orientalist finds such immense disparities, their significance would be even greater in other ages, when they were less smoothed out by the general technosphere. Grousset considers that 'most of our ills come from peoples who, living in the same epoch, do not obey either the same logic or the same morality'.¹⁵ He considers unevenness of ethnic development the cause of many wars and of such monstrous crimes as the German concentration camps. In fact, for such terrible crimes to be committed without excruciating remorse, there has to be a psychic structure that can only be represented as a pathology. These are not chance individual deviations, however, but ethnic ones affecting the stable moods of the masses, which means that it is a phase of ethnogenesis not compatible with what we consider the norm, which we take as the initial point of reference. But if we start to calculate from the other aspect, then the pathological seems to be what we consider normal.

If that is so, however, then we have to find some standard for measuring ethnic history similar to that which socio-economic formations are for social history. The task is complicated, however, by there being additional difficulties on the road to solving it — the relation of an ethnos to the enclosing geographical environment, which also changes, sometimes even more rapidly than the ethnos itself. Calliope is powerless here, and must beg help from her sister Urania.

NOTES

¹A.J. Toynbee. *A Study of History*. Abridgement of Vols. I-VI by D.C. Somervell. Oxford University Press, New York, London, 1947, p 60.

²*Ibid.*, pp 167-169.

³N.I. Konrad. *Zapad i Vostok* (West and East), Nauka, Moscow, 1966, p 454.

⁴*Ibid.*, p 455.

⁵*Ibid.*, p 457.

⁶*Ibid.* See the sections 'On the Slaveowning Formation', pp 33-53, and "The Middle Ages" in Historical Science', pp 89-118.

⁷*Ibid.*, p 454.

⁸*Ibid.*, p 37.

⁹*Ibid.*, p 455.

¹⁰*Ibid.*, p 76.

¹¹*Ibid.*, p 33.

¹²Karl Marx. *A Contribution to the Critique of Political Economy*. Progress Publishers, Moscow, 1977, p 206.

¹³The counterpoising of Iran to Turan, i.e. of the settled Arians, who adopted Zoroastrianism, to the steppe Arians, who preserved the cult of devas, did not lose its significance until the Arab conquest in the seventh century A.D.

¹⁴Yu.V. Bromley. *Etnos i etnografiya* (Ethnos and Ethnography), Nauka, Moscow, 1973, pp 122-123.

¹⁵René Grousset. *Bilan de l'histoire*. Plon, Paris, 1955, p 92.

OUR INNER NATURE

in which is shown what part of man belongs to nature and what not, and what part of the world outside the human body is outside nature, and also why everything said here and above still does not answer the problem of ethnogenesis

Ethnos and Population

An ethnos is not a population. Now and then ordinary phenomena give grounds for scientific conclusions whose perspectives go beyond schoolboy notions. In the science of ethnoi much has to be rethought and much of the habitual rejected.

It may seem to the unsophisticated reader that an ethnos resembles an organism with purely biological functions, but that similarity is external, and the differences are fundamental. An ethnos builds colonies and sometimes exists in diaspora, but a hand or ear separated from the body dies. An organism must produce like progeny, but an ethnos (each one) is unique and inimitable, and tradition does not cross the frontiers of superethnic entities. The functions of an organism are outside social laws; an ethnos is constantly interacting with social phenomena. An organism must sooner or later die, while there are persistent ethnoi, and so on.

One cannot in any case equate an ethnos and a population, which may be regarded (among animals) as the analogue of an ethnos. The difference is much greater than the similarity. A population is an aggregate of individuals settled over several generations in a definite territory; within this aggregate free cross-breeding occurs, yet it is at the same time separated from neighbouring populations by a certain degree of isolation. An ethnos, however, as we have seen, is not an aggregate of similar individuals but a system comprising not only individuals who vary both genetically and functionally, but also the products of their activity over many generations (technique, anthropogenic terrain, and cultural tradition). A sense of historical time is characteristic of dynamic ethnoi, a sense recorded by calendars with various systems of reference. But the absence of historical time as an ethno-psychological category of ethnoi during the phase of homeostasis does not give us any right to

treat them only as populations. Even a static ethnos may quite freely change its area, within certain limits, of course, migrating with changes in the geographical environment in search of accustomed conditions. Cross-breeding within an ethnos is regulated either by class or estate relations, or by traditional bans on incest, or by norms of law and religion. When these bans are relaxed, which sometimes happens, it is always a symptom of the approaching disintegration of the ethnos.

Finally, the character of ethnic isolation from neighbours is not associated with territory. When territorial mixing of two populations occurs, they immediately merge into one, but two or more ethnoi can coexist in one territory for ages, forming either a super-ethnos or a zone of ethnic contact at any level. Struggle between ethnoi, on the contrary, is a frequent phenomenon, even though inexplicable from the standpoint of the struggle for survival, because it is often not provoked by overpopulation of the area. But struggle between populations as discrete (corpuscular) systems is impossible because the aim of the individual in a population is to survive itself and have progeny.

The flock and herd forms of the existence of populations of higher mammals at first glance resemble elementary ethnoi. But the resemblance is illusory. Flocks are family nuclei, monogamous, polygamous, or seasonal. They break up as soon as the male, the leader, grows weak and loses influence over his own offspring. An ethnos grows from a consortium, i.e. a group of people united by a common fate. If they are men only, they get wives from outside and family relations arise in the second generation. Family ties promote consolidation of a rising ethnos, but are not obligatory, because cases have been observed of broad exogamy, which is particularly clear in the establishing harems.

An ethnos is thus not so much a population as a special phenomenon proper only to mankind that is manifested through social forms, in every case original, because the economy of a country is always linked with the supporting terrain, the level of development of technique, and the character of production relations. That does not mean, of course, that the ethnologist should ignore population genetics, but rather that he should understand that it reflects only one, and not the main aspect of the process I am studying. Therefore let me try and draw facts from it useful for further analysis.

It is very important to note that every population includes many different genotypes. The concentrations of genotypes differ in various populations, but each group of populations contains almost all the genotype combinations met in a given species. Small popula-

tions, however, lose certain genotypes, as a consequence of which their degree of variability is altered, and their capacity to adapt correspondingly reduced. That is known as degeneration. Most populations are in a state of dynamic equilibrium according to the principles of population genetics, differing among themselves in scale, structure, and genetic composition. Equilibrium is upset by the influence of factors of evolution, the mutation process, quantitative fluctuations or 'waves of life', as a consequence of a disturbance of isolation and natural selection. As a result of these effects there is either expansion or a reduction of the size of both the genotypes and of the whole populations, and in some cases mutations or fluctuations will lead to interspecific conversion or species formation. Since an ethnos is within a species, a trifling mutation pressure, compared with the species, will be sufficient for its formation, with the existence of a relatively smallish isolation and slight change of fluctuations. Ethnoi therefore arise more often than species, but there are also much fewer periods in which these processes are recorded by history.

Monomorphism. When we observe ethnic history, we readily note that periods of stability associated with an ethnos' attainment of maximum adaptation to one terrain or another are discoverable in the seemingly continuous process of transformation. These observations coincide with the conclusions drawn by the ichthyologist Yu.P. Altukhov and anthropologist Yu.G. Rychkov from population genetics, who supplemented the thesis by pointing to the 'undaptability at interspecific level of heritable variations having adaptive significance within a species', from which it follows that 'real movement is converted into resistance to change',¹ which maintains the isolates for an unlimited length of time. But if opposite processes were not observed, even though not constantly operating, it would be impossible for there to be species formation in the animal kingdom or for new ethnoi to arise that oust the isolates. They proposed the following answer to that.

A change in unique species properties should mean, in rare cases, the birth of a new species. But that is only imaginable as a unique, solitary event accompanied with the reproductive isolation of different individuals, and not as a constant stochastic process occurring at population level.²

If we apply that thesis to ethnology it will be a conception of excess, i.e. of an impulse whose results could only be manifested in specially favourable conditions of lability of the environment. In other

situations the inertia of the impulse would be cancelled and the 'different individuals' would perish at the hands of fellow-tribesmen. And it is a matter of indifference here whether the ethnos containing people dissimilar to itself is in a state of persistent rest—homeostasis—or whether it is being carried along by the stream of ethnic becoming through all its varied phases. In either case it will kill those whom it will justly (from its point of view) call monsters or degenerates. Yet new ethnoi appear, which means that conditions exist such as enable 'different individuals' not only to survive but even to win. These are obviously conditions of the environment, both territorial and ethnic, by which is understood, so to say, the character of the relationships between the neighbours of the studied individual. But if it is very difficult for us to trace the biographies of ancient people who did not manage to manifest themselves because of the envy, obtuseness, and maliciousness of fellow-tribesmen or fellow-citizens, then, when we pass to study of systems of several orders higher, i.e. ethnoi, we get the data we need to help us substantiate the conception of excess as the initial moment of ethnogenesis. And the bigger the studied system is the fewer will be the assumptions needed and the magnitude of the mistakes. From all of what has been said above it will be obvious that ethnoi are biophysical realities always surrounded by a social envelope of some sort. The dispute about which is primary in the origin of a new ethnos—the biological or the social—is consequently like that about which is primary in an egg—the albumen (white) or the shell. Clearly, the one is impossible without the other, so that dispute on this theme is pointless.

In actual fact a constant conjugation of all forms of the motion of matter is observed not only within large collectives (ethnoi that directly influence the terrestrial terrain and consequently do not exist as abstractions but are quite real) but also within one human individual. Even when we consider that all the details of a person's behaviour are dictated by his social surroundings, the individual's genetic code is a biological phenomenon and lowered secretion of adrenalin a chemical one. But both strongly influence the character of a person's activity, along with social factors.

Any superficial observer who ignores history will remain faithful to the principle of simplification when speaking of the interaction of man and his natural environment. It will seem obvious that where there are favourable conditions promoting rapid growth of labour productivity and population, the progress of human society will be rapid, and where they are not it will be slow. But what conditions are considered favourable? The climate in Andalusia is

milder than in England and Castile, but Grenada was conquered by the Castilians in 1492, and England was the ruler of the seas for almost 500 years. The geographical conditions of Norway did not alter for 2 000 years, but the Vikings only ploughed the waves of the ocean from the ninth to the twelfth centuries, while there was stagnation there before the ninth century A.D., and Danish occupation from the time of the Kalmar Union. Why?

It remains to suggest that flashes of ethnogenesis are not connected with the culture and life of peoples that are developing or stagnating, with racial composition, with the level of their economy and technique, and with fluctuations of climate changing an ethnos' ecology, but are associated with special conditions of space and time. The landscape does not of itself generate new ethnoi because it has to be stated that they sometimes do not arise in some one place, even very favourable, for whole millennia. The regions of ethnogenesis are changing all the time. The process interesting me begins now here, now there, which means it is not brought about by the terrestrial forces that we have already taken into account but is prompted by something else that we must look for.

Background and factor. Analysis of the interaction of an ethnos as an independent phenomenon, with the terrain, indicated that they are interconnected, but neither the ethnos is a constantly operating landscape-forming factor nor can the terrain be a cause of ethnogenesis without an external influence. The relation of the ethnic and social patterns actually excludes even a feedback, because Earth's ethnosphere is only the background for social development and not a factor of it.

Take the simplest variant, the single human individual. Anatomy, physiology, and psychology are closely interwoven in a person and depend on one another, thereby it is not necessary in my analysis in the differentiation of these aspects of human existence. Man, clearly, is a social being because his personality is moulded in ceaseless intercourse with other people and with objects created by the hands of his forefathers (technique). So. But the spermatozoon? It is a purely biological 'person' that develops according to the laws of the evolution of vertebrates. But the human personality's link with its own embryo is beyond doubt, and the human body itself, including its higher nervous activity, is consequently a laboratory in which the social and natural forms of the motion of matter are combined.

But even when passing through the incubation period and wholly entering the social environment, a human individual is gov-

erned by certain natural laws and patterns. The periods of sexual maturation and aging depend on inherited attributes developed during intraspecific evolution rather than on degree of social development. Sexual maturity sets in earlier, for example, among the peoples of the tropical belt than among northerners; the speed of the Negroids' reaction is faster than the Europeoids' and Mongoloids'; resistance to certain diseases, measles for example, is lower among Polynesians than among Europeans, and so on. These features have no relation to social development, but affect the behaviour of the people of various countries. The origin of these differences is undoubtedly linked with the adaptation of the ancestors of one population or another to different geographical conditions and with the formation of ethnai both past and now living. It is the accumulation of characteristics arising as a result of lengthy processes of adaptation that creates ethnic diversity when mankind passes through identical stages of development, i.e. socio-economic formations. But the complexity of the problem of ethnogenesis is not exhausted by social formations. For then ethnography would be simply a part of sociology, and societies belonging to one formation (the slaveowning, say) would behave in the same way. But Chinese antiquity not only differs from the Hellenic but also from the Japanese, Indian, or Egyptian. Social similarity does not eliminate ethnic originality.

Complementariness. But can we accept the idea that an ethnos is a biological magnitude? No. That too is not a solution, since ethnic processes take place in the conditions of monomorphic species.

Yet, for all that, some of man's biological peculiarities seemingly play a certain role. Assume that ethnogenesis, as a global phenomenon, is only a special case of general ecology; this 'particularity' is extremely important, however, because, when posing the problem of the original genesis of an ethnic entity from individuals (people) of mixed origin, different level of culture, and different peculiarities, we have the right to ask what draws them together. The principle of conscious calculation and striving for benefit is not present, obviously, because the first generation comes up against enormous difficulties, i.e. the need to break established relationships so as to establish new ones that meet their needs in place of them. That is always a risky business, and the initiators seldom manage to reap the fruits of victory. The principle of social nearness, too, does not fit, since a new ethnos eliminates the institutions of the old. Consequently, a person needs to be declassified as regards

the old in order to become part of a new ethnos when it is being formed.

But what if another principle is applied, that of complementarity linked with the subconscious mutual sympathy of individuals? That principle underlies marriage for love, but complementarity cannot be limited to the sphere of sex, which is only a variant of its manifestation. The main role in the forming of an initial collective, the embryo of an ethnos, is played by unconscious attraction of people of a definite kind for one another. There is always such an attraction, but when it is intensified the precondition necessary for the rise of an ethnic tradition is created. After that social institutions arise.

The birth of any social institution is thus preceded by an embryo, the union of a certain number of people sympathetic to one another. Having begun to act they become part of the historical process, cemented together by the aim they have chosen and historical fate. But whatever shape their fate takes it is a *sine qua non*. Such a group can be a robber band of Vikings, the religious sect of Mormons, the Order of Templars, a Buddhist community of monks, the school of Impressionists, and so on, but the common multiple is subconscious mutual attraction, be it even in order to argue with one another. I therefore called these embryonic associations consortia above. Not every one of them survives. Most disintegrate during the lifetime of their founders, but those that succeed in surviving become part of the history of society and immediately become overgrown with social forms, often creating a tradition. The few whose fate is not brought to an end by blows from outside, survive until the natural loss of heightened activity, but retain the inertia of mutual attraction, which is manifested by common habits, feelings about the world, tastes, etc. I call that phase of complementary association convicinity. It comes into the competence of ethnography rather than sociology, since this group is united by everyday life. In favourable conditions convicinities are stable, but their resistance to the environment tends to zero, and as a consequence of minimum resistance they become dissolved among surrounding consortia.

The principle of complementarity also operates at the level of the ethnos, being very active there. Then it is called patriotism and falls within the competence of history, because it is impossible to like a people without respecting its ancestors. Intraethnic complementarity is useful as a rule for an ethnos, being a powerful defensive force. But it sometimes takes a monstrous, negative form of hatred of everything foreign. Then it is called chauvinism.

But complementariness can only be speculative at the level of a superethnos. It is usually expressed in arrogance and haughtiness, when all alien people unlike oneself are called 'savages'.

The principle of complementarity does not relate to social phenomenon. It is observed in wild animals and is familiar to everyone in domestic animals in both positive forms (the affection of a dog or a horse for its master) and in negative ones. As we have seen, this principle plays a leading role only in the absence of social forms of the life of a collective, but it remains subordinate even when there are stable social establishments. That prompts me to return to the biology of man, which has fortunately been adequately developed.

Biological lines of investigation. The biological disciplines include not only anatomy and genetics but also sciences that study manifestations of the organism connected with the environment (reflexology, ecology, biocoenology, and ethology or the science of behaviour). I suggest that not everything connected with the activity of an organism is social in its nature. Animals and birds as well as man bring up and train their offspring. All herd animals have a system of signals, a regulation of sexual relations within the herd, and sex-age specialization for defence against enemies. The males defend the females and young. Can we call relationship of that kind social in the sense of the social motion of matter? In the usage accepted in Soviet science, no—because social development is based on the economic basis of making and development of the productive forces through the use of tools. Social relations are always connected with formations of one kind or another. That is the terminology accepted in Soviet science, and to change it means to confuse ourselves and the reader. But collective forms of the existence of a species were peculiar to our remote ancestors. Before man became a social animal he was a gregarious one, which by no means belittles human dignity.

The effect of the collective on the individual's physiology has now been quite well studied. Hypertension can arise even in a mouse, if it is teased, but one can hardly call a composition of a mouse, laboratory assistant, and experimenter social in the sense we accept.

How can biology help in my work? Let us begin *ab ovo*. Collective forms of social life are common among many species of land animals, e.g. in an anthill, a herd of ungulates, a flock of birds, and so on, but each species has its own character of the forming of collectives. For the species *Homo sapiens* this is the ethnos, but that by

no means implies that it is the analogue of an anthill or a herd. Just as man differs from other vertebrates (and he differs radically) so ethnoid are not similar to the collectives of other animals.

There are very many differences between animal collectives and ethnoid, but I shall limit myself for purposes of analysis to the elementary scheme I need in order to work out the role of cultural tradition. Imagine a tribe that had common ancestors, that is living on the old normal territory and distinctly differentiated by way of life, customs, religion, and kind of occupations from its neighbours. In that situation marriages will mostly be concluded between members of this ethnoid, since it will be pointless to bring someone into the collective who does not have the skills and living habits necessary to support a family in comfortable circumstances. Other skills, connected with other conditions, will be obviously unacceptable. The cultural image of an isolated ethnoid without powerful interference of outside forces (conquest) is relatively stable because each new generation will tend to reproduce the life cycle of the foregoing, which is precisely the cultural tradition of the ethnoid.

It would seem that tradition cannot be classed in any case as biology, but the mechanism of the interaction between generations discovered by Prof. M.Ye. Lobashev³ precisely through study of animals, among which he discovered processes of 'signal heredity', is simply another name for tradition. Individual adaptation comes about in the animal kingdom through the mechanism of conditioned reflexes, which provides the animal with an active choice of optimum conditions for life and self-defence. These reflexes are passed on by parents to children, or by the senior members of the herd to the junior, thanks to which the stereotype of behaviour is the highest form of adaptation. In man this phenomenon is called continuity of civilization, which is ensured by the 'signal of signals', speech. This continuity includes living habits and skills, ways of thinking, appreciation of objets d'art, treatment of elders and relations between sexes that ensure optimum adaptation to the environment and are transmitted through signal heredity. In combination with endogamy, i.e. isolation from neighbours, which stabilizes the gene fund, tradition serves as a factor creating stability of the ethnic collective.

Finally, anthropogenetics and anthropology, which treat populations of the species *Homo sapiens* in biological time, i.e. in succession of generations, are of no little importance. The life of an ethnoid is the superposition of biological time on historical, or the succession of generations, on the chain of events by causal succession. The superposition is done without breach of the causal pattern

thanks to the combination of genetic memory with historical succession as a consequence of which the ethnos exists as an entity.

But even more important is the rise of the characteristic in a population that I call X-factor; it is precisely because of it that processes of ethnogenesis are initiated that subsequently die out. When we have distinguished this characteristic we will have solved the problem posed but it is difficult to find it because it had to be sought for consistently.

Phylogenesis or Ethnogenesis?

Progress and the evolution of man. According to the accepted theory of evolution, the genus *Homo* appeared at the beginning of the Quaternary period in several varied forms of hominids, which possibly followed on one another although they may have sometimes been coexistent. Like our presumed ancestor *Australopithecus*, the hominids were large predators, not foreign to cannibalism, and consequently occupied an upper ecological niche in the biocoenosis. By the end of the last ice age all branches of this genus had died out, with the exception of just one species *Homo sapiens*, i.e. modern man. But the latter spread all over the dry land of the planet, and later in historical time mastered the surface of the hydrosphere and made such changes on Earth that the whole relief envelope of Earth is now justly called the anthropogenic. There is no region, with the exception of the polar ice-caps, where archaeological memorials of the stone and iron ages have not been found. We find Palaeolithic camp sites in present-day deserts and jungles, and Neolithic ones in the modern tundra and taiga. That points to past settlement of regions later abandoned by man and again being mastered now by the use of machine technique. Over 17 to 20 millennia, of course, the climatic conditions in various regions changed, but it remains a fact that *Homo sapiens*, unlike other species of vertebrates, has not been limited to a certain area and has been able to adapt itself to diverse natural conditions, which by rights puts it in a special place in the ecology of vertebrates.

In the nineteenth century, and early twentieth, the advance of engineering made it possible to rapaciously annihilate reserves of natural wealth, and that seemed the road of progress. Now there is already a lack of fresh water for the needs of industry, flora have been suppressed, dust storms are taking their revenge in the USA for the annihilation of the biocoenoses of the prairies, the Aral Sea is shrinking, the air of big cities is depleted of oxygen, 110 species

of vertebrates have disappeared from the face of the earth in the past 300 years, and another 600 species are in danger. That process was still called progress not so long ago and victory over nature. Now it had become clear that we are observing a phenomenon of a quite different (not social) order — the heightened adaptability and aggressiveness of *Homo sapiens*, one of the components of the biosphere of planet Earth.

And here arises the first question. How have these phenomena come about in the evolution of vertebrates to which *Homo sapiens* himself belongs? And a second one, no less important. Did man continue to remain part of the biocoenosis as the upper, final link having created tools and learned to use fire, or did he pass to some other sphere of interaction with nature drawing into it domesticated animals and cultivated plants? This is the more essential because, according to the law of the irreversibility of evolution, animals and plants altered unrecognizably by man's action cannot be returned to independent life since, with a few exceptions, they are unable to compete with wild forms. Thus a special substratum has been created in the biosphere. Will the principle of natural selection operate in it?

Many supporters of the theory of evolution, Darwin included, considered, and consider, that modern man continues to be subjected to that same natural selection that used to operate on his ancestors. Others doubt that, citing the following grounds:

The gradual weakening of the struggle for existence inevitably led to man's exit from the biocoenosis. This slowly proceeding process led to natural selection first becoming weakened for man and then being quite suppressed... But the absence of natural selection was equivalent to cessation of the action of one of the factors of evolution ... and biological evolution of man should have stopped. That happened around 50 000 years ago with the forming of Cromagnon man.⁴

Ya.Ya. Roginsky and M.G. Levin wrote in 1955 that the process of biological evolution had created in the person of modern man the possessor of species properties such as were leading to the fading of evolution.⁵ There could consequently, they claimed, be no doubt that man's evolutionary development had stopped long ago. But, since modifications within the species continue, the matter (and with it the posing of the problem) has not been settled. But a new aspect and a new method are needed in order to continue the investigation, because only by describing the peculiarities of the phenomenon can one go along with this or any other point of view.

Regional mutations. Four years after the appearance of Bystrov's book, G.F. Debets published a paper with astonishing conclusions.

The bones of the skull, massive in antiquity, had become finer (gracilization); and that had not happened gradually but by spurts, and not globally but in latitudinal zones.⁶ Thus, gracilization of the skull took place in the subtropical zone in the sixth millennium B.C., and in the temperate forest zone in the first millennium B.C. Debets compared the dates of the transition from hunting economy to agriculture with those dates, pointing out that 'one may suppose that the transition to farming led to a change in the structure of the skull'. But it is equally possible that changed man acquired a new occupation. Then Debets' following consideration is quite justified: 'neither comparative anatomy nor ethnography give us the right to consider that gracile forms are better within the species *Homo sapiens*'. Correct! But it is well known that modification of one characteristic affects not only man's anatomy but also his behaviour. Debets concluded 'that it is a matter of changes that have biological substance'.⁷ Consequently biological processes continue to take place in conditions of existence in human communities that stimulate even changes of skeleton. But then there would also have to be variations of a minor scale reflected in the physiology and behaviour. It is much more difficult to discover them, but the assumption of their existence, now there is a precedent, enables me to begin the search for a factor of human activity that operates along with the well-known social one. Can it be that this intraspecific evolution, which takes a peculiar form under the impact of the social principle, is the spread of the species beyond its original area? Or perhaps there is something new that has not yet been studied? Let us see.

Palaeontology provides the main material for the theory of evolution, but one must remember that its chronicle is not full, and the origin and extinction of species is still a matter of polemic. The inexactness of the chronology presents special difficulty, the assumptions in dating the appearance or disappearance of species sometimes exceeding millions of years. We encounter similar difficulties when studying certain somatic subdivisions of *Homo sapiens*, precisely the formation of races of the first order (Europeoid, Mongoloid, Australoid, and Negroid). A purely biological approach to the problem, even with a time limitation, consequently does not yield us any advantages. In addition we must note that race affiliation is not connected in any way with the heightened capacities of adaptation that enabled man to alter the face of the planet. Finally, the major races are such indefinite communities that there are different classifications of them in anthropology according to certain external characteristics (pigmentation, skull structure, etc.). The main

point is that the overwhelming majority of individuals have as ancestors members of different races, if not of the first order then of the second, and consequently the communities of people actually existing and directly observable are always heterogeneous. But it is precisely they, known to us as nationalities or ethnoi, that are collective forms of the existence of *Homo sapiens* that interact with the landscape of the regions they populated, i.e. the elementary ecological intraspecific taxons.

Conversion of the biocoenosis and succession. An established, or rather stable ethnos is not a danger either for its neighbours or for landscapes. It is connected, together with its technique and spiritual culture, with that geobiocoenosis in which it constituted the top, final link, since it comes into the cycle of conversion of the geobiocoenosis.

Let me explain. The English biologist Julian Huxley formulated the following thesis, that the conversion cycle is the mechanism on which rests the circulation of energy among plants and animals of a single habitat; in other words, it is the metabolism of the ecological community belonging to this habitat, and that the conservation of a habitat requires this circulation of energy to be maintained and intensified.⁸ That point is quite essential for me. Natural growth in a stable ethnos was usually limited in the past by high infantile mortality, and the maximum age reached by a married couple was usually only attained when the ethnos was kept in equilibrium with the environment and there was a certain insurance against exogenous effects (wars, epidemics, natural calamities). The overcoming of these constantly arising difficulties took the normal efforts of an isolated community. It always lacked aggressiveness and was incapable of changing nature. Such ethnoi obviously cannot be the cause of cataclysms that profoundly alter the nature of the regions occupied by them.

But other, diametrically opposite collisions often occur. Fairfield Osborn wrote in 1949 that the story of our (American) nation in the last century as regards the use of forests, grasslands, wildlife and water sources is the most violent and the most destructive of any written in the long history of civilization. Actually it is the story of human energy unthinking and uncontrolled.⁹ But it was also such from the standpoint of interethnic conflicts. The extermination of Indians, the slave trade, the reprisals against the metises in Canada in 1885, the annexation of Texas, the absorption of California and Alaska by gold-prospectors — all those events happened in an unorganized way and without control. The governments of the USA and

Canada simply later sanctioned *faits accomplis* and profited by them.

But the Arab penetration of East Africa and the trekking of the Dutch settlers into the Cape lands and then to the Orange River happened on the very same principle. Russian explorers conquered Siberia by the same method, and the Chinese the lands to the south of the Yangtse. The Hellenic colonization of the Mediterranean and the raids of the Vikings did not differ from the events described. The campaigns of the Celts and the seizure of Northern India by the Arians were seemingly the same in character. Consequently we come across a frequently repeated phenomenon of the transition of an *ethnos*, or part of it, into a dynamic state in which its aggressiveness and adaptive capacities grow immensely, enabling it to adapt itself to new, hitherto unaccustomed conditions of existence.

All the actions described, and ones similar to them, called for colossal work (in the physical sense) from those involved, equally physical, intellectual, and emotional. Any work, to be productive, necessitates an expenditure of corresponding energy which has to be drawn from somewhere or other. So what is this energy? Clearly it is not electrical, or mechanical, or thermal, or gravitational. And where do the people who are dashing ahead at mortal risk get it from? Do they need such a dangerous amusement? But if they make use of this energy, dying nevertheless more often than winning, it is legitimate to ask whether or not the described phenomenon is related to the X-factor I am bent on finding. Perhaps. But first let me pose the problem more precisely.

Anthroposuccession. One must not extend the peculiarity of *certain events* of history I have noted to *all* its phenomena. That would be as much a mistake as to reduce *all* manifestations of human activity to social principles.

The great precept one must give historians is to distinguish instead of confusing, for unless it is varied it is not true at all. Unfortunately, mediocre minds have a taste for uniformity; uniformity is so convenient! If it distorts everything, at least it solves everything.¹⁰

So Augustin Thierry wrote with anger; and how right he was! It is stupid, for instance, to reduce the Seven Years' War, say, or Napoleon's conquest of Prussia to acts of God. Events of that order become beautifully clear from the calculations of politicians dictated to them by the sphere of social consciousness, and not by in-

instincts. That is a criterion of classification as clear as the psychological classification of an individual's acts into conscious and sub-conscious. The indicator here is the existence of free choice in decision-making and consequently moral and legal responsibility for one's deeds. These two lines of behaviour in people's practical activity are never confused. Thus love is considered natural in youth, but hooliganism and prostitution are punished by law as deliberate wilfulness; loss of hair and teeth in old age are not blamed on a person, but they do not justify, say, involvement in service intrigues, although the latter may be due to some extent to the existence of sclerosis. A similar approach to the demarcating of historical phenomena of various kind may be employed in scholarly analysis, as I once showed on the particular example of a description of the diversity of the movements of the nomadic peoples of Eurasia depending on the humidity of the steppe zone. Now I shall simply note that such a relation happens for the whole species *Homo sapiens*.

The migration of peoples to accustomed conditions is a striving to maintain themselves as an ethnic system, and to keep from destroying the nourishing landscape. Anthropolossession, i.e. invasion of regions that cannot always be settled, or are not always worth settling, but which can be conquered, is negative migration. And what is most terrible, the victors suffer no less than the losers, because they are obliged, in order to realize their success, to adapt themselves to new conditions, and that means a radical break-up of their own nature. Clearly, only the young, most labile and plastic, i.e. unstable, are capable of such a shake-up. But when the process is starting (succession or aggression, as the reader wishes) these elements play only a subordinate role. For the leading individuals the unleashing of a train of bloody events is inexpedient and undesirable. But because anthropolossessions happen all the same, it would seem their causes lie outside that which is controllable by human consciousness. Then the dynamics and statics of ethnogenesis are equally legitimate, and there are no categories of guilt and responsibility in them. This thesis, it goes without saying, does not entail all-forgiveness. Individual people, of course, are guilty of the crimes they commit, irrespective of the phase of ethnogenesis. But ethnic patterns are of a higher order, and both the statistical law of large numbers and Newton's third law (for every action there is an equal and opposite reaction) apply to them—the victors perish together with the vanquished or a little later, not in the sense of physical death, however, but in that of ethnic reorganization. Unlike snakes, ethnoids change their souls rather than their skins.

When Immortality Is More Terrible Than Death

Phylogenesis becomes ethnogenesis. The dispute about whether man is a beast or a god that troubled the minds of romantics and nihilists has now, happily, lost significance. It has become obvious that man is not only an animal but is part of the animal kingdom, in spite of his other qualities, which not in the least belittle his dignity. That is why he lives in collectives—in ethnoi or specific communities. It is important for my theme to establish the place of the ethnos as a specific phenomenon within the species *Homo sapiens*, to clarify how the relative stability of an ethnos is maintained, and to understand the reasons for its origin (the question of questions) and disappearance (which is simpler). It is therefore necessary to establish that it is ethnic collectives that adapt to local conditions of some sort while the stages of development, or formations, are global and their links with the geographical environment are mediated by a mosaic anthroposphere, i.e. the ethnosphere, accessible to the naturalist's observations. When we encounter a large number of events we can group them on the principle of similarity and causal succession, i.e. apply the method of the natural sciences to the historical material. And then we obtain a firm conclusion: ethnoi arise and disappear independently of the existence of any notions of contemporaries, which means that they are not the product of the social self-awareness of individual people, although they are exclusively linked with forms of people's collective activity. Social development lays its stamp on all other forms of the motion of matter in so far as they are connected with people. But no one had ever tried to interpret gravitation or electric conductivity, epidemics, death, and heredity in a social sense, because that is the field of natural science. We have the right to treat the 'impulses' described above, and certain similar phenomena, as anthropogenic succession. But I shall analyze the perplexity and doubt arising with that a bit later when we are clarifying their cause, i.e. the very enigmatic X-factor. But now let me get on with description of the phenomenon.

Over the past 5 000 years anthropogenic changes of the landscape have occurred more than once, but with varying intensity and always within definite regions. When compared with the history of mankind a clear link is established between anthropogenic changes of nature, both creative and rapacious, and epochs of the moulding of new ethnoi or of ethnic migrations.

Both the rise of an ethnos and reorganization of the landscape in accordance with its new aspirations, and the migration of a large

number of people with weapons and tools are work in the physical sense, which means they call for the expenditure of energy. Furthermore, the maintenance of an ethnos as a system cannot proceed smoothly without an expenditure of energy to overcome the constant resistance of the surroundings. And even the decline of an ethnos, i.e. slowing down of its development, is linked with an application of force against the cause that prompts acceleration.

When I formulated this thesis,¹¹ it was supported by Yu.K. Efremov,¹² and later by Yu.V. Bromley, who ascribed the authorship of it to Efremov, of which the latter, according to his sincere personal declaration, was innocent. But it is even more astonishing that Prof. Bromley, while recognizing the 'role of the bioenergetic source' in ethnic processes, suggests that this energy 'depends on the concrete historical conditions of their (i.e. ethnic communities)' existence.¹³ The law of the conservation of energy, it would seem, is not in need of defence, and it is inappropriate to start a dispute on that score. Here it is important that other scholars recognize the presence of a certain kind of energy for the performance of work to be necessary for ethnogenesis as a process.

The characteristics of this specific form of energy are described in Vernadsky's outstanding work:

Everything living represents a continuously changing aggregate of organisms, linked together and undergoing an evolutionary process in the course of geological time. This is a dynamic equilibrium tending in the course of time to pass into a static equilibrium... The longer existence lasts, if there are no equivalent phenomena operating in the opposite direction, the closer to zero will be the free energy, [i.e.] the energy of living matter that manifests itself in the direction opposite to entropy. Because the development of free energy capable of doing work comes from the action of living matter.¹⁴

The structure of an ethnos and its stereotype of behaviour are consequently dynamic quantities that are determined by the existence of an intraethnic evolution that is equally dissimilar to the social and biological.

Translating this conclusion into the language of ethnology one can say that the fate of all ethnoi is a gradual transition to ethno-relief equilibrium. By that I mean a situation in which the ethnic collective, for example a tribe, becomes part of the biocoenosis of a region, and growth of population, limited by the possibilities of the biochore, ceases. In that aspect ethnoi have their place in geobiochemistry. The stable state of an ethnos is that when all the energy obtained from the natural environment is swallowed up by internal processes, and its output is zero; a dynamic state is a suddenly arising

ing capacity for a greater intake of energy, and its output outside the ethnic system in the form of work; the historical state is gradual loss of the ethnogenic attribute (the capacity to absorb a large quantity of energy and to give it up purposively outside in the form of work), which comes about through simplification of its structure.

But each relict (persistent) ethnos only exists because it was once formed, which means it has survived the dynamic and historical phases of development. It is, consequently, on the one hand, a crystallized form of the proceeding evolutionary process and, on the other hand, the substratum for the rise of new ethnoi. During its formation any ethnos passes through a destructive phase of reorganization and restructuring not only of the nature of the region it has occupied but also of its own physiology and ethology (pattern of behaviour), which is expressed in adaptation of its organism to the new conditions. Such break-ups are not always possible. As we have seen, they occur in certain relatively rare epochs of the spontaneous migrations of peoples. But then a stable system is established for a long time that is recorded on ethnographic maps.

So, biological evolution within the species *Homo sapiens* continues, but has acquired features not characteristic of other species of animals. Phylogenesis has been converted into ethnogenesis.

Evolution and ethnogenesis. One must not equate phylogenesis and ethnogenesis, of course, because new ethnoi remain within the species. The analogy I have drawn is limited in principle, and because of that explains the difference between macroevolutionary processes and micro ones. But while recognizing the existence of modern man's biological evolution, the ethnologist cannot agree with the forecasts of some of our Western contemporaries about the directional development of the brain, which would alter the whole image of man.

J.B.S. Haldane drew a picture of a new species of hominid *Homo sapientissimus*, obviously pandering to the tastes of his audience who wanted to see progress, and only progress, in the future. But if that had been so, then people who lived 2 000 to 5 000 years before us would have had marked somatic differences from us. One may recall the gracilization discovered by Debets; but even that defender of the variability of races declared:

Separate 'primitive' and 'progressive' characteristics are found in all races, but none of them is distinguished by a 'primitive' or 'progressive' set of characteristics not previously counted as such. If we take the skull of an anthropoid ape, or even of Neanderthal man as the criterion of primitiveness, then the proto-European type of the Eneolithic epoch of the Russian plain will not be

more primitive in the sum of its characteristics than the type of ancient Slavs or modern Ukrainians.¹⁵

The development of mankind has taken the line, in reality, of extending the area and increasing the number of intraspecific variations, i.e. ethnoi. Some of the latter have perished, leaving material or literary memorials to posterity; some have remained in the form of relicts; and some have disappeared without trace. But there has been no case when the subconscious actions of populations with a single stereotype of behaviour led to purposive changes of their own nature whatever the conditions created for this collective.

It transpires that people sometimes prefer valiant death to voluntary self-restraint to save their life, which in that case loses any attraction for them. This feature of the intraspecific psychological stereotype limits the possibilities of ethnogenesis as a local process, and throws doubt on the analogy of ethnogenesis with evolution.

However strange that conclusion may seem, it is consistent and believable, because when an ethnos acquires social forms, it creates political institutions that are not natural phenomena. The Romans created the Senate, the consulate, the tribunate, and a system of law, the Franks feudalism, the sixth-century Turks the 'Ehl' as a combination of tribal unions and military formations (hordes), the Incas a complex structure of subordination of Indian tribes to their own hierarchy, and so on. But all these institutions were the work of human hands and, in that sense, similar to colonnaded temples, palaces, axes, and clothing, which (as already said), not having possibilities of self-development, can only be ruined by the action of time.

Forms created by human genius and labour resist the gradual disappearance of things, but any quite strong outside influence can smash the form and doom its content to decay. And after such a tragedy has occurred, if it is not followed by immediate regeneration, the ethnos is converted into an amorphous population, a component of the geobiocoenosis. And only a new burst of ethnogenesis will bring it out of the blind alley, force it to mix with neighbours, and proclaim a new ethnic dominant. But then that will already be a new ethnos.

Creation or life? At first glance this harsh conclusion strikes one as pessimistic, but only at first glance. Do people need an eternity of vegetation 'bereft of God, of inspiration, bereft of life and love and tears'¹⁶?

Is not a capacity for creation the best quality of people? But it involves unrecuperated expenditure of the vital energy of the human organism. And if it is a matter of a system of a higher order, an ethnos, then the pattern in it is the same. Victory over a strong enemy in a war of liberation or conquest carries off many heroes and their genes. But is it worth preferring such a sacrifice to shameful slavery? Transformation of the landscape, the opening up of new lands (and in our time of planets), exhausting work in a laboratory or a library, not out of duty but for the love of it, tear people from their families or in general prevent them from building one. But we esteem the names of Columbus and Magellan, Przhevalsky and Livingstone, of the mathematicians Evariste Galois and Henri Poincaré, of the historian Thierry and the scientist Mendeleev, who burnt themselves out in work. And artists? Rembrandt and Van Gogh, Andrei Rublev and Mikhail Vrubel. And the poets, and the composers; and the heroes who fought for their fatherland need not even be listed, since everybody knows such examples. Many of them left no trace in the gene fund but their sacrifice erected an edifice of culture that now inspires posterity.

But some people like these had families and their children did not display the talents of their parents. But does that contradict my conclusion? Let us see.

Capability, in itself, is hardly everything. A fuse is needed for great achievements that pushes people to self-sacrificing service to an ideal, real or imaginary. This fuse can be treated precisely as a characteristic (probably recessive, because it is not always inherited). If a person of the described bent had a hundred children, one could probably calculate the percentage and so the probability of this characteristic being passed on. But alas, methods of investigation suitable for peas and flies are not applicable to man. But history has material at its disposal that generalizes the characteristics of the activity of various ethnoi in various, rigorously dated epochs. Ethnic history and analysis of various ethnogeneses allow us to establish the following mutual dependency: the intensity of ethnogenesis is inversely proportional to the ethnic system's length of existence, which nevertheless cannot exist indefinitely.

(1) The monotony of a depressing existence lowers people's vital tonus so much that an inclination toward narcotics and sexual aberrations arises, in order to fill the psychic vacuum being formed. And that always weakens an ethnos as a system. (2) Having eliminated extremal genotypes, an ethnos is simplified through the reduction of diversity, and that in turn lowers the resistance of the

ethnic collective as a whole. In quiet conditions that is imperceptible, but when there are clashes with the biological medium, mainly with neighbours, the absence of active, specialized, and sacrificial elements is very painfully felt. It is hardly right to consider it a conscious process as S.M. Shirokogorov did, in suggesting that an ethnos tended to 'intellectual levelling and reduction to a common level of individuals who put themselves first, being guided by an awareness (or instinct) of self-preservation'.¹⁷

No ethnos takes conscious decisions about eliminating thinking and valiant people, but they perish by the logic of events uncontrolled by the will of their participants. Such was in imperial Rome when, during soldiers' mutinies, the most disciplined centurions became their victims, after which the legionaries were easily broken by the barbarians; and in Byzantium where the population refused to man the walls in 1204 and 1453 and defend their homes, leaving the courageous defenders to die without help; in China, in the twelfth and thirteenth centuries, where the population and the government surrendered to the Jurchen and the Mongols, and so on. But it was so only in epochs of decline when the logic of historical events coincided along the vector with biological degeneration and social crises. And because each ethnogenesis finishes with the death of the system, the teleological principle seems absurd. Can people strive for their own terrible end? It can only courageously recognize its inevitability.

So, neither Darwinist nor anti-Darwinist, nor the new synthetic conceptions of evolution are suitable as an explanation of ethnogenesis.

The views of S.I. Korzhinsky. Yet there is a conception suitable for my subject with, of course, corrections and a purging of the preconceptions of individual theses.

In 1899 Korzhinsky, a well-known Russian scientist, published a book in St. Petersburg *Heterogenesis and Evolution*. In his view, the struggle for existence and natural selection were factors limiting the formation of new forms and putting a stop to the accumulation of variations, since they promoted the survival of average types, i.e. maintained the *status quo*. The appearance of new forms came about through rare 'leap variations' in some geographical region or other. The process of evolution led to the formation of a sex barrier (uncrossability) between the new race and its progenitors and the rise of new heterogeneous variations.

The appearance of a new geographical race was pictured as follows:

Among the progeny coming from normal members of some species or race and developing in one and the same conditions, separate individuals unexpectedly appear deviating more or less from the others and from their parents. These deviations are sometimes quite significant and are expressed in a whole number of characteristics, but are frequently restricted to a few or even some one difference. But it is noteworthy that these characteristics have great constancy and are invariably passed on from generation to generation. Thus, a new race arises, as fast and constant as those that have existed since time immemorial.¹⁸

Zavadsky is seemingly right when he notes that Korzhinsky's hypothesis relates to race or species formation, but by-passes the problem of expediency, and does not ask what is the link between species formation and adaptation genesis. The hypothesis consequently has no connection with evolution understood as the formation of good, expedient characteristics.¹⁹

Without taking it on myself to judge how far Korzhinsky's conclusions are correct in regard to the formation of species, they are applicable as a whole when one is speaking of ethnogenesis, a process of several orders lower. The processes of the formation of ethnoid are not evolutionary ones, and it is in this that ethnogenesis differs from anthropogenesis.

Excess and inertia in ethnogenesis. The conception of heterogenesis removes almost all the perplexities about the character of ethnogenetic processes. Natural selection stabilizes an ethnic system, which leads to its inevitable simplification. That in turn calls for recognition of the conception of excess, i.e. of the stimuli (singular mutations) that arise from time to time and upset the natural course of the changes of energy connected with the origin of an ethnoid, in order to explain the phenomena observed.

But if the processes described were not offset by others just as powerful, but of opposite sign, new ethnoid would not arise. Then mankind would already have been converted, back in the Palaeolithic, into an amorphous mass of anthropoids similar to each other and inhabiting one climatic belt. These biped predators would have multiplied extremely slowly because, like all other animals, they would have been limited by the amount of food. And they would not have needed intellect because, having attained optimum adaptation to the natural conditions, they would not have experienced a need for changes. In short they would all have lived like present persistent isolates.

But in fact there were outbursts of ethnogenesis from time to time entailing an extension of the area and a reshuffling of many of the elements of the hypersystem called 'mankind'. And, as I showed

above, these outbursts are inexplicable by social development because they are not oriented to progress at all and so seldom coincide with changes of formations that the coincidences should be considered chance ones. That means it is necessary to return to the conception of the biological evolution of *Homo sapiens*. It is accepted to consider that, after the forming of a genuinely human society in the Upper Palaeolithic, 'selection as a species-forming force proved surmounted' and 'by comparison with the high development of speech and thinking *Homo sapiens*' other features were not of decisive importance, although they were not, of course, indifferent'.²⁰ The last reservation is sufficient.

For an excess to arise that does not alter man's physiology and anatomy, but only deforms the stereotype of behaviour, it need not be strong. On the contrary, only a weak excess leaves the background unaffected (whether geographical, physiological, or social) on which the outlines of the new psychological attitude stand out clearly. And the stimulus of this excess or push can only be the X-factor mentioned more than once above.

The Sum of the Contradictions

Until an answer is found. In trying to find a non-contradictory explanation of the essence of ethnic phenomena, I have turned to various sciences and everywhere obtained an answer of sorts, but always not exhaustive. Not that I did not need these answers; quite the contrary, they were necessary but illuminated certain conditions of ethnogenesis and not its true cause, which according to the conditions of my problem, should be invariant, i.e. always be present and unequivocally affect the phenomena. Let me explain.

Racial or intraracial shift of ethnoi through exogamy or assimilation sometimes generates a new ethnos, sometimes a throwback to the initial forms, and sometimes leads to degeneration of the population to its complete dying out. Obviously there is an unaccountable characteristic in these processes that radically alters the results.

The isolation realized through endogamy often preserves ethnoi, but sometimes so weakens them that they lose the capacity to resist both the natural and the ethnic environment. Then the ethnos disappears, being displaced or destroyed by neighbours.

Adaptation to conditions of terrain of various character sometimes leads to ethnic degeneration, but sometimes does not. Even

in different climatic zones an ethnos may remain monolithic, at a given level of mosaic development, of course.

Similarity of a territory's conditions, into which two or three ethnoid are brought by migration, on the contrary, sometimes entails mutual assimilation, but sometimes the ethnoid coexist without merging. The cause, here, is clearly not the nature of the region but something in the ethnoid themselves, that still has to be discovered and described.

A combination of two or more reliefs or terrains is an obligatory condition for the beginning of a local ethnogenetic process. But it is not enough. Ethnoid do not always arise in such conditions, which means we must look for an additional factor.

The spread of one type of culture, for example, a religious system, sometimes leads to the merging of ethnoid, but sometimes does have the least influence on the independence of the ethnic development of new beliefs. Similarity of material culture may equally either bring peoples together or push them into competition and rivalry, or have nothing to do with their relationships. The same needs to be said of the division of cultural types. When a new sect or doctrine appears, its devotees sometimes hivel off into a special ethnos, but sometimes remain in the old one, maintaining their convictions. Intolerance is not characteristic of all ages and peoples.

Similarity of social conditions may attend the assimilation of ethnoid but not necessarily so. It also often happens that some of the people in an ethnos live according to the accustomed conditions of gentile society, some under feudalism, while a certain active group practices capitalist relations. That phenomenon is known and is called a multi-sectoral economy.

Does the global historical process lead, perhaps, to the formation of huge ethnic entities? Sometimes it does, but sometimes the ethnos becomes divided into two or three parts from which new ethnoid arise capable either of migrating or coexisting in one territory. Again, it is possible, but not necessary.

But since all the aspects enumerated above still have significance for the way the ethnogenesis of one ethnos or another proceeds, it would seemingly be correct to consider them parameters rather than factors, because only by excluding local variations can we discover the true X-factor, the same for all ethnogeneses, so that having found it we can solve all the enumerated puzzles.

Ethnogenesis and energy. The common features of an ethnos as such, i.e. any ethnos, are the following: (1) its opposing of itself to all others, and consequently self-assertion; (2) a mosaic develop-

ment or structure, or rather an infinite divisibility cemented by systems connections; (3) a uniform process of development from the starting moment, through an acme phase, to dispersal or conversion into a relict. Since I have established that an ethnos is not 'an amorphous state', and not 'a social category', and not 'a complex of community of language, economy, territory and psychological character', but a phase in the process of ethnogenesis, the key to solving the problem lies precisely in the third obligatory feature.

Let me draw the conclusion that suggests itself. Both for the starting moment and for achieving the acme, and equally for regeneration, a capacity is required for superstresses and tensions in the rising population, which are displayed either in the transformation of nature or in migrations, etc., that is to say in the sought after X-factor. Almost all the ethnoi known to me are grouped together in unique constructions, superethnic entities. The spread of ethnoi is linked with the place where they arise, with migrations, with victories and defeats in the struggle with natural calamities and neighbours, but ordinary tensions are not sufficient for them not to perish. Any aggregate state of the medium is inert, and a supplementary expenditure of energy is called for to disturb it, similar to the latent heat of melting or evaporation. But after a supereffort has been made, an inertial process begins that is dampened only through the resistance of the medium.

Two ethnic 'states' are known to me, the homeostatic, in which the life cycle is repeated in the generations, and the dynamic, in which the ethnos passes through the phases of development named above, with homeostasis as the limit. Movement is observed in both cases, but in the first it can be metaphorically called rotary, and in the second oscillating, its tensivity being measured by its amplitude. Social progress is onward movement, but we have already shown its difference from ethnogenesis.

In answer to 'What moves?', I say—the ethnic system, which is a component of Earth's biosphere. To 'Where does it move?', I answer—nowhere, because the concepts 'ahead' or 'back' are inapplicable to oscillatory motion. The question 'Can we find a mathematical expression for ethnogenesis that would facilitate analysis?' cannot be answered in one word. Let me try and clarify this in detail.

When we pose any task in connection with ethnological problems, we experience the same difficulties as when one tries to solve some not clearly formulated technical problem by means of modern computers. Numerical methods are inapplicable in both. But in both a solution can be obtained by employing known methods of

modelling. A model of the process is created that reflects the aggregate of our views on it, and it is corrected by reliable facts. Then the model is employed both to identify the remaining set of facts and events, and to forecast the characteristics of the future state of the process or one not known to us in the past. Each solution that we recognize as correct refines and develops the model on the basis of a heuristic evaluation and as a result of confirming by new, purposively found factors (a plausible solution being known).

And, finally, we know that all ethnoi now existing were created relatively recently; rare relicts survive from old ones, but not one remains from the primaeval ones. That indicates that ethnogenesis is a constantly on-going process, like other phenomena of nature, although correlated with sociogenesis, which gives rise to systems of a rigid type.

In order to create or construct a system of one type or another it is necessary to do work, i.e. to expend corresponding energy. This energy is not electromagnetic, of course, or thermal, or gravitational, or just mechanical. But I have already shown that anthropogenic successions, dampened through the environment's resistance, are relatively rare but powerful impulses, explosions of energy, capable of performing work.²¹

The discreteness of ethnic history. The discreteness of certain processes of history had already been noticed by the historians of antiquity. Ssu-ma Ch'ien formulated this law quite laconically: 'The road of the three kingdoms is ended and has begun again'.²² This idea is present in many historians from ibn Khaldun and Vico to Spengler and Arnold Toynbee. It is untrue when applied to the social history of mankind, and inexact when the history of separate countries is being worked out, but is acceptable for studying the processes of ethnogenesis, with substantial corrections of course.

(1) The 'end' does not always mark the appearance of a 'beginning'. Ethnoi and superethnic cultures not only arise when the preceding cycle of development ends, but sometimes after a considerable interval of time after its end. The striving to see a strict rhythm is not supported by the facts. Thus the Byzantine ethnos arose in the epoch of the flourishing of the Hellenic-Roman, and they co-existed for several centuries. The Muslim superethnos forced the Byzantine and Germanic-Roman to make way for it while at the same time swallowing up the Central Persian (Sassanian Iran and Sogdiana). And between the Hunni and the Turks, and the Turks and the Mongols, lay centuries of troubled times when the steppe was peopled by relict ethnoi. It is seemingly a

more complicated matter, or rather the cause of ethnogenesis does not lie in the rhythm of ethnoi's history.

(2) The ordinary division of the process into three stages (rise, flowering, and decline) does not answer the simple question 'the rise and fall of what?'. The level of life fluctuates independently of these stages; flourishing and culture do not coincide with a favourable economic or political situation, and the power of the state is not always an indicator of an easy life. Under Napoleon, for example, the French were distressed—there was no sugar, coffee, or woolen fabrics. In short, qualitative evaluations are inevitably subjective and cannot be taken into account in the description of natural phenomena, to which ethnogenesis belongs.

Finally, where is the boundary between the social and the biological in both the individual person and the social collective? On the one hand, it lies within the human body, and on the other, far beyond it. Anatomy, physiology, reflexology, the genetic code are all not social but biological, biochemical, and even biophysical. The character of the development of state relations, on the contrary, and of political demands and requirements, and of ethnical and aesthetic ideals are not reducible to biological and geographical factors, but are the fruit of social development. Combining study of these two lines of development makes it possible to re-create the history of separate ethnoi; and when the history of the terrain and history of culture are added to that, we will have ethnic history.

Where, then, is the X-factor? Now, when I have described the phenomenon of ethnogenesis in various aspects, I can pose the question of what is the cause of the rise of these inertial processes. Since no action can occur without the application of forces, we must evidently look for a form of energy that acts directly on man's mind, and an effect of this energy that can be found in the human psyche. It must be an impulse strong enough to overcome the instinct of personal and even species self-preservation inherent in any organism, i.e. sacrifice that extends even to one's posterity, which is not observed in any animal species. But then there are no ethnoi among animals. Their communities lack the social form of the motion of matter and self-developing institutions. Consequently, the X-factor interesting me lies in the sphere of human psychology.

When searching for the factor that generates and destroys ethnoi one must remember that it operates on the background (1) of a changing geographical environment, (2) of evolutionary processes of social development, (3) of historical *peripeteiae*, and (4) of growth or decline of culture. And the study of the background sub-

modelling. A model of the process is created that reflects the aggregate of our views on it, and it is corrected by reliable facts. Then the model is employed both to identify the remaining set of facts and events, and to forecast the characteristics of the future state of the process or one not known to us in the past. Each solution that we recognize as correct refines and develops the model on the basis of a heuristic evaluation and as a result of confirming by new, purposively found factors (a plausible solution being known).

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(2) The ordinary division of the process into three stages (rise, flowering, and decline) does not answer the simple question 'the rise and fall of what?'. The level of life fluctuates independently of these stages; flourishing and culture do not coincide with a favourable economic or political situation, and the power of the state is not always an indicator of an easy life. Under Napoleon, for example, the French were distressed—there was no sugar, coffee, or woolen fabrics. In short, qualitative evaluations are inevitably subjective and cannot be taken into account in the description of natural phenomena, to which ethnogenesis belongs.

Finally, where is the boundary between the social and the biological in both the individual person and the social collective? On the one hand, it lies within the human body, and on the other, far beyond it. Anatomy, physiology, reflexology, the genetic code are all not social but biological, biochemical, and even biophysical. The character of the development of state relations, on the contrary, and of political demands and requirements, and of ethnical and aesthetic ideals are not reducible to biological and geographical factors, but are the fruit of social development. Combining study of these two lines of development makes it possible to re-create the history of separate ethnoi; and when the history of the terrain and history of culture are added to that, we will have ethnic history.

Where, then, is the X-factor? Now, when I have described the phenomenon of ethnogenesis in various aspects, I can pose the question of what is the cause of the rise of these inertial processes. Since no action can occur without the application of forces, we must evidently look for a form of energy that acts directly on man's mind, and an effect of this energy that can be found in the human psyche. It must be an impulse strong enough to overcome the instinct of personal and even species self-preservation inherent in any organism, i.e. sacrifice that extends even to one's posterity, which is not observed in any animal species. But then there are no ethnoi among animals. Their communities lack the social form of the motion of matter and self-developing institutions. Consequently, the X-factor interesting me lies in the sphere of human psychology.

When searching for the factor that generates and destroys ethnoi one must remember that it operates on the background (1) of a changing geographical environment, (2) of evolutionary processes of social development, (3) of historical *peripeteiae*, and (4) of growth or decline of culture. And the study of the background sub-

jects enumerated also includes, of course, ethnogenesis. Consequently, it is not the sum total of the sciences but their system, determined by the problem set, that is the key to answering any problem posed, i.e. to a scientific synthesis. That is why I have prefaced the exposition of my main subject by a long description of the phenomenon of *ethnos* and its interaction with nature, society, and the traditions of culture inherited from the distant past.

It will be quite obvious that all attempts to discover this X-factor by analyzing the behaviour of separate people are doomed to failure. First of all, we can never distinguish the partial and accidental in single cases from the general-species and law-governed. But as soon as the statistical law of large numbers comes into force, small deviations from the regular mutually cancel each other out and systems of connections are discovered with acceptable plus or minus deviations that in no way distort the picture. But the separate examples possess the clarity of representation necessary for understanding the principle, and I shall therefore not scorn them. But it must be remembered that however necessary they are as illustrations they are never a substitute for the meaning.

Clio vs Kronos. Now let us talk about history, because there is something to say. Not only in the sceptical nineteenth century did the profane call history an idle pastime, entertaining reading, the whim of rich idlers, a means of propaganda or even a 'policy turned to the past'. But there are other views about history.

Not so long ago the astronomer Kozyrev made an attempt to understand history as a function of time that allegedly exuded in its course the energy needed for great and small achievements. But that conception, too, is bankrupt, because the historical processes that actually occur in time are entropic and inertial and consequently arise not thanks to Kronos, who devoured his own children, but in spite of him.

But if that is so, then the science of history is a struggle with time, which the Hellenes personified in the terrible god Kronos who castrated his own father Uranus and was overthrown by the lord of lightning Zeus. But lightning is energy, in my language anti-entropic impulses that with their rise disrupt the processes of death, the entropy of the Universe. Force, the cause provoking acceleration, saves Cosmos from conversion into Chaos, and the name of this force is Life.

But in the eternal war of the protogenic elements, the servants of Kronos, the hundred-handed giants or *asura* (Sanskrit), lose nothing because they have nothing to lose. Kronos changed their

appearance every second, and so deprived them of personal qualities and properties. But the paladins of Cosmos, the ordered Universe, by their nature acquired forms, and consequently also a personality, in each case unique and inimitable. And in the struggle with Chaos they meet their death—the separation of space from time.²³

For those that die, be they microbes or baobabs, men or embryos, time disappears, but all organisms of the biosphere are connected with one another, and that means they know one another. And the death of one is a loss for many, because it is a victory of Kronos, the known enemy of life. To be reconciled to the loss is a surrender of position, and against Death stands Memory, the barrier to entropy of no longer being but consciousness. And it is memory that divides time into past, present, and future, of which only the past is real.

The present, in fact, is only a moment, instantaneously becoming the past. There is no future, because acts that determine any consequences are not completed, and it is not known whether they will be completed. The future can only be calculated statistically, with an assumption that deprives the calculations of practical value. But the past exists; and everything that exists is the past, because any achievement then and there becomes past. That is why the science of history studies the sole reality, which exists outside us and despite us.

And not only the profane say that knowledge of the past is useless for our practical life. In antiquity they went to fortune-tellers and astrologers to divine the future. And the latter divined, sometimes amazingly correctly. But how did the soothsayers achieve success? By studying the past, by checking possible variants, and refining forecasts, because the number of variants in a given situation was always limited. Thus a good chess player calculates a game many moves ahead because he spares no pains to study hundreds of games played long before he was born. The history of chess play helps him build the most probable and therefore in practice the truest forecasts, and then to win in tournaments and matches. The knowledge of the past is incarnated in the present, i.e. in success.

Every experiment of a physicist or chemist, observation of a geologist or botanist, communication of a theorist, or the calculations of an economist, when written down, are converted into historical sources, i.e. a fixing of the past that enables us, with skilful use, to find the optimum variants of behaviour for achieving ends that lie in the illusive future.

Finally, is understanding of oneself and of one's place in the world really only a means of making money? No, it is the goal for many people worthy of respect! Surely, gratitude to the ancestors who built the town in which we live, who discovered new lands to which we now travel without fuss, who painted pictures we feast our eyes on, and who wrote books from which we learn, is the duty of everyone who has not lost human feelings. Is admiration of the heroes of the past who gave their lives for the sake of their posterity really a prejudice? No! Thanks to history!

But history is a search for truth, because the information of ancient sources is bespattered with lies, like fetid mud. The past ceases to be real when it is replaced by fabrications and figments of the imagination, or distorted by incomplete transmission, or burdened with the unnecessary tinsel and trimmings of senseless details. The father of lies whispers into the ears of credulous ignoramuses that there is no truth in history but only personal perceptions, that its phenomena are not a chain of causally connected events but a senseless kaleidoscope it is impossible to remember, that texts should be understood literally as if the chronicler had written them not for contemporaries but for posterity, and finally that all migrations of ethnoi, and their rises and falls, their fame and death, are like the play of moonlight on the ripples of a lake. But if that is so, then there is no need to study history, and the past, lost from memory, becomes nothing, and Chaos takes the place of Cosmos.

At the end of the eighth century A.D., in Tibet, Buddhist preachers, adherents of the Mahayana, taught that the world was an illusion, salvation submergence in Nirvana, and the way to Nirvana the avoidance of either bad or good deeds, because 'black clouds and white clouds equally hide the sun from us'. To that the Tibetan shen, a Bonze or Buddhist priest, appealing to the people, said: 'Do not listen to the twaddle of the Mahayanists: the heart will tell you where black is and where white'. Obviousness and intuition lie on the boundary of science and art. That is why history has its own muse, Clio.

No, it is not a matter of the right to groundless, almost always absurd statements, supposedly suggested by intuition or to obvious ones, like the rotation of the Sun around the Earth. Deceit is also possible when it rests on self-deceit. Clio helps her devotees in another, much more important matter, viz., to find the proofs of correct theses, to bring out mistakes in the collection of initial data, and to spot breaches of logical constructions. All that is ostensibly simple, but in fact each, even tiny approximation to the truth is a feat.

But Clio not only knows how to preserve the remnants of the past, covered by the dust of Time and blanketed by the ashes of the Lie. She can deprive these predators of their prey and does so under our very eyes and by our hands. The ruins of Troy were found, the Tower of Babel excavated, the treasures of Tutankhamen saved, the hieroglyphs of the Mayas read, the forgery of the chronicles made by Ivan the Terrible discovered, and the black legend of the Mongols lifted. The list of the resurrections, even though not of personalities, but of their great deeds, could be endlessly continued, because great and small discoveries are being made, now here, now there.

Isn't that a victory over Kronos? Isn't it the resurrection of ancestor ethnoid?

Now I can pose the main question: 'Why do ethnoid arise and why is their end inevitable?'

NOTES

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⁴A.P. Bystrov. *Proshloe, nastoyashchee, budushchee cheloveka* (The Past, Present, and Future of Man), Nauka, Leningrad, 1957, p 299.

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¹⁰Augustin Thierry. Letter No. 2. *Lettres sur l'histoire de France*. Jouvett et C^{ie}, Paris, 1881, p 29.

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¹²Yu.K. Efremov. An Important Element in the Chain of Man's Links with Nature. *Priroda*, 1971, 2: 79.

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¹⁶A.S. Pushkin. *Selected Works*, Vol. 1. Progress Publishers, Moscow, 1971, p 33.

¹⁷See: S.M. Shirokogorov. Ethnos. *Izvestiya Dalnevostochnogo universiteta* Shanghai, Vol. XVIII, Issue 1, 1923, p 130.

¹⁸See: K.M. Zavadsky. *Razvitiie evolyutsionnoi teorii posle Darvina* (The Post Darwin Development of the Theory of Evolution), Nauka, Leningrad, 1973, p 12.

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²⁰Ya.Ya. Roginsky, M.G. Levin. *Op. cit.*, p 314.

²¹L.N. Gumilev. Ethnos as a Phenomenon. *Doklady otdelenii i komissii VGO* Leningrad, 1967, 3: 106.

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²³V.I. Vernadsky. *Op. cit.*, pp 283-288.

DRIVE IN ETHNOGENESIS

devoted to description of the attribute without which the processes of ethnogenesis do not commence and will not proceed, and also to its significance for ethnic systems and emotional filling as a measure of activity and resistivity to external effects

The Ethnogenic Sign or X-Factor

Here it is, the X-factor! Now I ask the reader to accept my apologies for having rambled so long with him through the 'jungle and deserts' of geographical, biological, and ethnographic subjects, and not directly told you what the secret is. For you simply would not have believed me. You would have said: 'But this is all quite clear. An ethnos is determined by language, race, the geographical environment, social relations, self-awareness, processes of evolution, or a combination of all of them, or by some of the factors named, to one's taste.' And that is not only the view of dilettantes but also of many professionals, although it proves bankrupt every time it is applied to the analysis of ethnogenesis.

My task was to show not only that not one of the listed factors provided a chance of constructing a hypothesis, i.e. an uncontradictory explanation of all the facts of ethnogenesis known at a given time (although the number of rigorously recorded facts is by no means unlimited), but also that no combination of them did. It follows from this that the proposed solutions were incomplete. Consequently, a right arises to look for a new solution, i.e. to construct an original hypothesis. Any hypothesis, to be acceptable, must explain all the known factors. But the conversion of a hypothesis into a theory is a very complicated business, so that a scholar has no right to establish the moment of this evaluative transition. His task is different: to expound his point of view and present the substantiation of it to the judgment of contemporaries and posterity.

Some now understand by psychology the physiology of higher nervous activity, which is manifested in people's behaviour. Individual psychology is often integrated into systems of the highest order (social and ethnic psychology), but the scale of the system does not

alter the point in my posing of the question. The motivation of the deeds of individual people is therefore not a matter of indifference for my analysis, because they compose the ethnic stereotypes of behaviour.

In the words of Frederick Engels, 'no one can do anything without at the same time doing it for the sake of one or other of his needs and for the sake of the organ of this need'.¹ Man's needs yield to classification, for which many degrees of fractionalism we do not need are proposed. For the purposes of my analysis it is advisable to limit the division to two groups of different sign. The first is the set of needs that ensures self-preservation of the individual and the species—the 'need of needs'; the second is the motives of another kind thanks to which intellectual assimilation of the unknown comes about and the inner organization is complicated—the 'needs of growth', which Dostoevsky described in *The Karamazov Brothers* as the need of knowledge, because the secret of human existence is not just to live but what to live for, and moreover to establish itself surely everywhere, because man needs a community of ideals (what I would call an ethnic dominant). The latter does not arise of itself, however, but appears and develops together with the phases of ethnogenesis, i.e. is a function of the sought after X-factor. I am now almost at my goal.

The examples cited above indicate how different are the conditions in which processes of ethnogenesis begin. But at the same time a more or less uniform further course of them is always observed, sometimes disturbed by external effects. So if, in trying to discover a global pattern, we employ constant four-phase scheme of the process and ignore external impulses as chance interference, we inevitably come to a conclusion about the existence of a single cause of the origin of all ethnoi on the globe. It will be the very X-factor that must be taken as the sought invariant.

In order to convince you that I have discovered precisely the magnitude that is the impulse of ethnogenesis I must show that the three classifications noted above are built into one scheme by allowing for it: viz., (a) the ethnological, i.e. division into 'anti-egoists' and 'egoists'; (b) the geographical or relation to the terrain; and (c) the historical, i.e. the natural dying out of an ethnic community, passing through the phases of rise and fall. Coincidence of the three lines adjusts the accuracy of the proposed conception and disclosure of the X-factor.

Let me start with the path of 'empirical generalization', and see what element is present in all the beginnings of ethnogenesis, however varied they have been. As we have seen, the forming of a new

ethnos always starts with an irresistible inner urge to purposive activity, always linked with a change in the surroundings, social or natural, achievement of an intended goal, often illusory or disastrous for the subject itself, being, moreover, more valuable to it than even its own life. That is undoubtedly a seldom encountered phenomenon and a deviation from the species norm of behaviour, because the described impulse is opposed to the instinct of self-preservation and consequently has an inverse sign. It may be connected with both heightened capabilities (talent) and medium ones, which indicates its independence among the other stimuli of behaviour described in psychology. This characteristic has never and nowhere yet been described and analyzed, but it is precisely it that underlies the anti-egoistic ethic in which the interests of the collective, even though incorrectly understood, prevail over the craving for life and concern for one's offspring. Individuals that have these attributes in conditions favourable for them perform (and cannot help performing) deeds and actions that in sum break the inertia of tradition and initiate new ethnoi.

The effect generated by this attribute has long been seen; furthermore, it has even been known as 'passion', but in everyday usage any strong feeling has come to be called such, and ironically, simply any, even weak attraction. For the purposes of scholarly analysis, therefore, I suggest a new term 'drive', excluding from it the animal instincts that stimulate the egoistic ethic, and the caprices that are symptoms of a disordered mind, and equally mental diseases, because although drive is of course a deviation from the species norm, but by no means pathological.

Engels on the role of human passions. Frederick Engels clearly described the force of human passions and their role in history.

Civilization has accomplished things with which the old gentile society was totally unable to cope. But it accomplished them by playing on the most sordid instincts and passions of man, and by developing them at the expense of all his other faculties. Naked greed has been the moving spirit of civilization from the first day of its existence to the present time; wealth, more wealth and wealth again; wealth, not of society, but of this shabby individual was its sole and determining aim. If, in the pursuit of this aim, the increasing development of science and repeated periods of the fullest blooming of art fell into its lap, it was only because without them the ample present-day achievements in the accumulation of wealth would have been impossible.²

This thought runs like a red thread through the tissue of his *Origin of the Family, Private Property and the State*. It was 'the greed for wealth', he points out, that led to the origin of antagonistic classes.³

And, when speaking of the decline of the gentile system into a society that was in the phase of homeostasis, he wrote:

The power of these primordial communities had to be broken, and it was broken. But it was broken by influences which from the outset appear to us as a degradation, a fall from the simple moral grandeur of the ancient gentile society. The lowest interests—base greed, brutal sensuality, sordid avarice, selfish plunder of common possessions—usher in the new, civilized society, class society; the most outrageous means— theft, rape, deceit and treachery—undermine and topple the old, classless, gentile society.⁴

That is how Engels regarded the progressive development of mankind. Greed is an emotion rooted in the sphere of the subconscious, a function of higher nervous activity lying at the boundary of psychology and physiology. Equivalent emotions are the greed, sensuality, avarice, and selfishness mentioned by Engels, and also love of power, ambition, envy, and vanity. From Philistine positions this is a 'bad feeling', but from the philosophical angle only the motives of actions can be 'bad' or 'good' and, moreover, consciously and freely chosen ones, but emotions can be only 'pleasant' or 'unpleasant', according to what actions they generate. But actions can be and are very different, and may be objectively useful for the collective. Vanity, for example, drives an artiste to win the approval of the audience and so to improve his talent. A craving for power stimulates the activity of politicians sometimes needed for government decisions. Greed leads to the accumulation of material values, etc. For all these emotions are modes of drive characteristic of almost all people, but in extremely different amounts. Drive can be displayed with equal facility in very different features of character, giving rise to feats and crimes, creation, and good and evil, but not leaving room for inactivity and comfortable indifference.

Hegel expressed himself as categorically in his lectures on the philosophy of history.

We assert then that nothing has been accomplished without interest on the part of the actors; and—if interest be called passion, inasmuch as the whole individuality, to the neglect of all other actual or possible interests and claims, is devoted to an object with every fibre of volition, concentrating all its desires and powers upon it—we may affirm absolutely that *nothing great in the World* has been accomplished without *passion*.⁵

In spite of all its colourfulness, there is a not unimportant defect in that description of the socio-psychological mechanism. Hegel reduced passion to 'interest', and by that, in the nineteenth century, was understood the striving to acquire material goods, which ex-

cluded in advance the possibility of self-sacrifice. And it was not by chance that some of Hegel's followers began to exclude sincerity and unselfish sacrifice to the object of their passion from the motives of the behaviour of historical persons. That vulgarizing, which unfortunately became a general misconception, stemmed from the imprecision of the German philosopher's formulation.

But the founders of Marxism surmounted that barrier. In reply to the militant banalities of the Philistines, who saw only selfish egoism in all the actions of all people without exception, they put forward the idea of an indirect determinability that left room for a diversity of manifestations of the human mind.

Yes, ideas are lights in the night luring scholars to ever newer achievements, and not penitential chains fettering movement and creation. Respect for predecessors consists in carrying on their feats, but not in forgetting what they did and what they did it for.

Examples of Drive

Napoleon. Lieutenant of artillery Napoleon Bonaparte was poor in his youth and dreamed of a career. That is banal, and therefore understandable. Thanks to personal connections with Augustin Robespierre, he was promoted captain, after which he captured Toulon and, having become a general as a result of that, suppressed a Royalist rising in Paris in October 1795. His career had been made, but neither it, nor his marriage to the beauty Josephine de Beauharnais had brought him wealth. But the Italian campaign had made him rich, so that he could have lived the rest of his life without working. But something pulled him to Egypt, and then instigated the fatal risk of the 18 Brumaire. What? A craving for power, and nothing else! And was he satisfied when he became Emperor of the French? No, he took on himself the excessive burden of wars, diplomacy, legislation, and even enterprises that were in no way dictated by the true interests of the French bourgeoisie, like the Spanish war and the march on Moscow.

Napoleon explained the motives of his actions differently each time, of course, but their real source was an insatiable craving for activity that did not abandon him even on St. Helena, where he wrote his memoirs only because he could not rest without something to do. The stimulus of Napoleon's activity was an enigma for his contemporaries. And it was not without reason that the Parisian bourgeois, welcoming the Russian army that entered Paris in 1814, proclaimed: 'We don't want war, we want to trade'.

And in fact the bourgeois king Louis Philippe, who carried out the social mandate of developing French capitalism, stopped the war with England, which had become traditional, and shifted the activity of his militant subjects to Algeria, because it was more profitable, safer, and did not affect the majority of Frenchmen, who wanted peace and quiet. But why didn't Napoleon do just that after the Peace of Amiens? Since he was not Louis Philippe, the Paris shopkeepers could not order him about. They only wondered why the Emperor was eternally trying to wage war. Just as Alexander the Great was not understood even by his 'companions', as the Conqueror King's closest comrades-in-arms were called.

Alexander the Great. Alexander the Great had everything by right of birth that a person needs: food, a house, amusements, and even talks with Aristotle. Nevertheless he threw himself on Boeotia, Illyria, and Thrace, only because they did not want to aid him in the war against Persia at the time when he, allegedly, wished to avenge the destruction wreaked by the Persians during the Graeco-Persian wars, about which the Greeks themselves had managed to forget.⁶ Later, after victory over the Persians, he fell upon Central Asia and India, the senselessness of that war outraging even the Macedonians. After his brilliant victory over Porus

meetings took place in the camp of men who grumbled at their present fate — those of the better kind — and of others who maintained stoutly that they would follow no farther, not even though Alexander should lead them.

Finally, Coenus, son of Polemocrates, plucked up courage and said to him:

You yourself see what a large body of Macedonians and Greeks we are who set forth with you, and how many we are who are now left. But of the rest of the Greeks, some have been settled in the cities which you have founded; and they do not all remain there willingly; others ... have lost part of their member in battle; and part have become invalided from wounds, and have been left behind, some there, in Asia; but most of them have died of sickness, and of all that host only a few are left, and even they no longer with their old bodily strength, and with their spirit even more wearied. These, one and all, have longing for parents, if they yet survive, longing for wives and children, longing even for their homeland, which they may pardonably long to revisit, with the treasure received from you, returning as great men, instead of little, and rich men instead of poor. But do not be a leader of unwillingness troops.⁸

That was the point of view of a wise, businesslike man, who took into account and expressed the mood of the troops. One must recognize that Coenus was right in his opinions of realpolitik, but it

was not his reason but the irrationality of Alexander's behaviour that played an important role in the origin of the phenomenon we call 'Hellenism', the role of which in the ethnogenesis of the Near East is beyond doubt.

In that connection, the speech of the king himself and the arguments by which he tempted the troops to continue the campaign interest me. Listing his conquests, Alexander said:

It is those who endure toil and who dare dangers that achieve glorious deeds; and it is a lively thing to live with courage, and to die, leaving behind an everlasting renown.

... For indeed what great or noble thing could we ourselves have achieved, had we sat still in Macedonia and thought it as enough to guard our own home without labour, merely reducing the Thracians on our borders, or Illyrians, or Trillians, or even such Greeks as might not be useful to us?⁹

That was the programme of a man who put thirst for fame above his own well-being and the interests of his country. Alexander himself, moreover, was 'most temperate in bodily pleasure, ... very sparing of money for his own pleasure, but most generous in benefits of others'.¹⁰ According to Aristobelos, 'His carousings ... were prolonged not for the wine, for Alexander was no winebibber, but from a spirit of comradeship'.¹¹ But they did not go to war for the sake of satisfaction! And his soldiers did not want to fight the Indians at all, the more so that it was impossible to send the booty home with the existing means of transport. But they fought, and how they fought!

It is hardly worth looking for the reason that drove the Macedonian king to conquest in a striving to acquire markets for trading cities or to eliminate Phoenician competition. Athens and Corinth, which had only just been conquered by force of arms, continued to be enemies of Macedonia; there was no sense at all in sacrificing themselves for the enemy's sake. So the motives of Alexander's behaviour have to be sought in his personal character. Both Arrian and Plutarch noted two qualities in him that were taken to extremes: ambition and pride, i.e. a display of the 'drive' I have described. This excess of energy not only proved sufficient for victory but also to compel his subjects to wage a war they didn't need. Many of Alexander's companions, of course, like Perdikkas, Cleitus, Seleucus, and Ptolemy, also possessed drive and were sincerely involved in their king's cause, thanks to which ordinary Macedonians and Greeks were drawn into the campaigns. It was not one man but a whole group of people with drive in the ranks of the Macedonian army that were able to break the Persian monarchy and

create several Macedonian kingdoms in its place, and even a new ethnos, the Syrian. The Macedonians themselves and the Persians were transformed out of recognition in the new conditions, and became the prey of the Romans and Parthians.

But perhaps it was the idea of merging Hellas with the East that pushed Alexander to his feats? No, he had studied philosophy with Aristotle, and the latter did not teach him such an idea. Chronologically this idea arose not before the conquest of Persia but after it, otherwise Alexander would not have burned down the palace in Persepolis. One is not seeking a compromise in destroying the masterpieces of the art of the conquered people.

So drive is a capacity and striving to change surroundings, or (to use the language of physics) to disturb the inertia of the aggregate state of the environment. Its impulse is so strong that its bearers, people with drive, cannot bring themselves to reckon with the consequences of their actions. That is a very important circumstance showing that drive is not in people's consciousness but in a subconscious element, being an important characteristic reflected in the constitution of nervous activity. The degrees of drive are different, but for it to have visible manifestations recorded in history there must be many with it, i.e. it is not an individual characteristic, but a group one.

Lucius Cornelius Sulla. Let us test the correctness of the description of this characteristic I have discovered on several other personages. Lucius Cornelius Sulla, Roman patrician and *nobili*, had a house in Rome, villas in its environs, and many slaves and clients. Like Alexander he experienced no lack of either feasts or entertainments. What pushed him into the army of Gaius Marius whom he despised and detested? For he did not confine himself to the duties of a staff officer, but took part in the fighting and captured Jugurtha, risking his life, in order to carry him to Rome and condemn him to starve to death in the Mamertine prison. For all those feats he received only one honour – lounging the Forum and chatting with friends, he could call Marius a dull blockhead and himself a hero. Many people believed that, but not everyone. Then Sulla again got into a fight, won a duel with a chief of barbarians who had invaded Italy and killed him, and – began to boast even more. But that seemed little to him. He was superior to Marius, we presume, but there remained the memory of Alexander. Sulla decided to conquer the East and proclaim himself greater than the Macedonian king. There they said to him: 'Enough! Let others work for a while!' Sulla, it would seem, should have been satisfied because his

services to the Roman Republic had been recognized; home—the cup runneth over, all around respect and admiration—live and rejoice! But Sulla did the opposite. He rallied the legions, took his native city by storm, appearing on the barricades without a helmet so as to inspire his comrades-in-arms, got himself sent to another hard war. What drove him on? Obviously, there was no striving for gain. But from my point of view the inner pressure of drive was stronger than the instinct of self-preservation and the respect for the law bred in him by culture and custom. Subsequently, simply the development of the logic of events, what in time of Alexander Pushkin was called ‘la force des choses’ (a good, but forgotten term). That still applies fully to history, which reinforces ethnology. In 87 B.C. Marius opposed Sulla with an army of veterans and slaves (who were promised their freedom). The Consul Lucius Cornelius Cinna supported Marius, drawing the Italians, i.e. the oppressed ethnoses, to the side of the plebs. Having taken Rome Marius ordered the most humane of his generals to massacre the slave-soldiers because reliance on them compromised him. And 4 000 men were cut down in their sleep by their comrades-in-arms. That massacre showed that the plebs, for all their democratic declamations, differed little from their opponents, the optimates.

Yet there were differences. Sulla also mobilized 10 000 slaves in his army, but after victory rewarded them with plots of land and Roman citizenship. The difference between Marius and Sulla was determined more by personal qualities than by party programmes. In contrast to Alexander, moreover, Sulla was not ambitious and proud, because he himself declined power as soon as he felt satisfied. He was an extremely vain and envious person, but these traits of his character were just the manifestations of drive. Let me stress once again that Sulla’s success depended not only on his personal qualities but also on his contact with his surroundings. His officers (Pompeius, Lucullus, and Crassus) and even some of the legionaries also had drive, and felt and acted in unison with their leader. Otherwise he could not have become the dictator of Rome.

Jan Huss and Joan of Arc. It also happens that people with drive do not make their near ones victims of their own passions, but sacrifice themselves for their salvation or for an idea. Jan Huss gave an example of such sincere service, when he declared that he said and would say that Czechs in the Czech kingdom by law and by the requirements of nature should be first in positions, just like the French in France and the Germans in their lands. But Huss’ sacrifice in Constanza would have been fruitless if Jan Zizka and the

Prokop brothers, students of Prague University, citizens and knights, peasants, and Czech priests had not thrown the burgomaster of Prague and the German advisers of stupid King Vaclav IV of the Luxembourg dynasty from a window of the Town Hall in the Old Town. They were possessed by anger, and avenged the unjust sentence of their rector, betrayed, and later burned by the Germans.

If there was a temptation, in the examples of Napoleon, Alexander the Great, and Sulla, cited above, with a great stretching of the point, to see in them 'heroes who lead the crowd', then here, in a similar combination of events, it is obvious that it was not a matter of personal 'heroism' but of the creation of an ethnic dominant that organized the drive of the system and directed it to the intended goal. But many cases are known when a heroically, patriotically minded leader was unable to induce his fellow-citizens to take up arms to defend themselves and their families against a cruel enemy. Let us return to an example I have already referred to earlier.

Suffice it to remember Alexius Murzuphlus, who fought on the walls of Constantinople against the Crusaders in 1204. Around Alexius there was only a Viking (Varangian) bodyguard, and a few hundred volunteers. They were all killed. But the 400 000 population of Constantinople allowed the Crusaders burn and pillage the city. That is where the difference comes from between the role of a leader and the possibilities of an ethnos determined by the level of drive.

Even more indicative were the events that occurred in Rome in A.D. 41. The regime established by Augustus had converted all the republican laws into fictions, and resplendent decorations covering up the despotism of the *princeps*. Under Tiberius, and especially under Caligula, cruel reprisals against rich people (whose property replenished the imperial treasury) became the fashion. In addition Caligula suffered from fits of paranoia during which he ordered anyone his eyes fell on, or whom he chanced to remember, to be killed. During the republic no one could even have imagined such a thing, but the civil wars had carried off so many men with drive that the senators and *equites* only shivered and awaited death. Two brave men were found, however, Cassius Chaerea and Cornelius Sabinus, who murdered the scoundrel. The Senate could have taken the power that belonged to it by law, but most of the senators were scattered in their homes, the people thronged the squares, and were then dispersed. The emperor's bodyguards, Germans, having seen him murdered, left, and there was no revolution or coup d'état.

Some soldier found the terrified uncle of Caligula, Claudius, brought him to his comrades, and they declared him emperor for a payment of 15 000 sesterii for each legionary. But 'differences' reigned in the Senate, until all the cohorts joined Claudius. The republican conspirators were executed and despotic power was established.

Here the leaders were 'heroes' and the 'mob' was numerous, but the system of the Roman ethnos lacked energetic replenishment of the drive that had made the Roman people conquerors of all neighbours and the city of Rome the capital of half the world. The legionaries did not even win, because they met no resistance.

But let me return to the Czechs, who lost the rector of Prague University. The Czechs were not like the Romans of the time of the Principate but were like those of the epoch of Marius and Sulla. Jan Huss, of course, was a good professor and enjoyed popularity among the Czech students, but his influence on all strata of the Czech ethnos grew unbelievably after his martyr's end. Not the 'hero' but his ghost, which became the symbol of ethnic self-assertion, roused the Czechs and threw them against the Germans, so that the German and Hungarian knights fled in panic from the detachments of Czech partisans. One cannot say that the Czechs were inspired by the Prague professor's ideas. Huss defended the teaching of the English priest Wycliffe. And his followers... Some demanded the Eucharist from the cup, i.e. a return to Orthodoxy; others a national church without a break with the Papacy; a third group denied the need for a hierarchy; a fourth declared themselves 'Adamites', stripped themselves naked, and denied everything at all (the Czechs themselves exterminated these madmen).

It was not a positive programme but a negative ethnic dominant that gave the Czechs victory in the twenty years' war (1415-1436) – 'kill the Germans', because they were Catholics, because they were noblemen, because they were peasants who lacked rights, because they were rich burghers at whose expense one could profit, because of anything you like. But at what a price. Bohemia lost the greater part of its population, Saxony, Bavaria, and Austria around half, Hungary, Pomerania, and Brandenburg much less, but also a considerable part.

Bohemia defended freedom and culture but only through an internecine war. The Calixtine Utraquists crushed the Taborite Protestants at Lipany, and dealt with them mercilessly. After that there was an opportunity to conclude peace with the Germans. King Jiri Poděbrad (1458-1471) pursued a policy of tolerance because of the people war-weariness.

That brief survey shows that drive is an elemental phenomenon that can be organized in an ethnic dominant by words that reach the masses. But it can also be spilled without flowing together in a single stream, which is what happened in Bohemia in the fifteenth century.

Something similar, but not altogether, happened in the same years in France liberated from the power of the English King Henry VI and his allies, the Burgundians, who were striving to break away from France despite their Dukes being Valois. Joan of Arc, a girl from Lorraine who spoke French with a German accent, would never have saved either Orleans or the King, or her homeland, if she had been surrounded only by the scoundrelly courtiers of the Dauphin and his mistress Agnes Sorel, and there had not been either Jean Dunois and La Hire, or the marshal de Boussac and the captain Jean Poton de Xaintrailles, or reckless cuirassiers and skilled arbalesters, for whom it was enough just to hear 'la belle France' (a formula of the ethnic dominant) to understand what it was that was worth fighting for to victory, even though, before that, those who didn't want 'to become Englishmen' had fought for the Dauphin.

It is not individuals with drive, of course, who do great things, but the general disposition that one can call the level of drive. The mechanism of this phenomenon was brilliantly described by Augustin Thierry in his analysis of Hugh Capet's victory over the Carolingians.

When the masses of the people are in movement they do not take a very clear account of the impulse that dominates them; they march instinctively, and hold to their goal without trying to define it well. If they are considered only in a superficial way, they are believed to blindly follow the particular interests of some chief whose name alone acquires renown in history; but even this importance of proper names emanates from their having served as a rallying cry for the great number who know what they mean when they utter it, and have no need for the moment of a way of expressing themselves more exactly.¹²

Yes, but this means that all the events I have reviewed had an ethnic content at bottom, or rather in depth. Both Alexander and Sulla, and Jan Huss must be regarded as members of different ethnogeneses in different phases and regions. So, by singling out individual psychological contours we arrive at an ethnopsychology as the source of sources of the history of peoples.

The immense material accumulated by ethnography really calls for generalization. Many ethnographers, especially Soviet ones, have been concerned with quests for the principle on which all the

global material can be comprehended.¹³ The principle must clearly be a new one, otherwise it would have been employed long ago, and universal. The truly existing phenomenon of drive meets these requirements like the effect of the impact of phenomena of nature on the behaviour of ethnic communities. But it contradicts the customary conception of an ethnos as a 'social state'.¹⁴

The predilection for outmoded and untrue opinions entails a certain logical error of the inductive method, viz., metaphysical distortion. When the brain encounters new ideas, impressions, etc., it seeks rest in a buffer process of analogizing and building a bridge between perceived known and new unknown clothed in a customary dress. That road does not attract me. I want to take the next step. But first let me briefly formulate the conclusions I have already drawn, because they are now becoming starting points.

Saving or squandering? Let us recall that Vernadsky discovered the biochemical energy of animate matter when he compared swarms of locusts with the mass of ore in a deposit. The mass of the swarm proved to weigh more than the mass of an individual ore deposit. And that whole immense mass for some reason chose the road to death. What impelled it? In his search for an answer Vernadsky created a theory of the biosphere as an envelope of the Earth with anti-entropic properties. But people are also part of the biosphere. Consequently, the energy of animate matter permeates our bodies, permeated the bodies of our forefathers, and will permeate the bodies of descendants, stimulating diverse ethnogeneses. My job, now, is to show whether the phenomenon I have discovered and described can solve the problems of ethnogenesis and ethnic history posed above.

The scheme of ethnogenesis as a discrete process, described above, presupposes the sudden rise within some region of a group of ethnoi with drive and then their spread beyond it, loss of the complexity of the ethnic system, and either dispersal of the individuals composing it or their conversion into relicts. Since this scheme, in spite of a host of local variants, is traceable everywhere, there is a need to interpret it, even by comparison.

Imagine a ball that has been given a sudden push. The energy of the push is expended at first on overcoming the rest inertia and then on moving the ball, which will slowly die out because of the resistance of the medium, until the ball stops. The path of the ball will depend on whether it is on the level or runs into an obstacle, or rolls into a hole. But however many times we repeat the operation,

the principle of the motion is the same — inertia of the push, i.e. expenditure of the energy of the impulse received.

In the biosphere phenomena of that order are called successions. They are very diverse in duration, character, and consequences, but they all have a significant feature of similarity, viz., time lag or persistence, which appears in man as expenditure of the impulse of drive. It makes mankind similar to other phenomena of the biosphere, while the social and cultural phenomena characteristic of man alone have another character of movement, on the boundary of which lies the phenomenon of ethnos.

The Tension of Drive

The biochemical aspect of drive. There is no doubt that every person and every collective of people is part of the biosphere and a component element of society, but the character of the interaction of these forms of the motion of matter has to be made more precise. In order to attain this goal and to solve the problem, I have introduced the concept 'ethnos' to designate a stable collective of individuals that counterposes itself to all other similar collectives, and that has an inner structure, unique in each case, and a dynamic stereotype of behaviour, into the problem of the relation of man as the bearer of civilization with the natural environment. The specific variants of mankind's links with the natural environment are realized precisely through ethnic collectives. But here we have the problem of the boundary and relation between the natural and the social. Obviously, nature dominates outside the technosphere, but it also lies in the bodies of people. Physiology (including pathophysiology) is closely linked with psychology as a product of the organism's nervous and hormonal activity. Lack of iodine causes cretinism; secretion of adrenalin gives rise to fear or anger; the hormones of the sex glands stimulate love lyrics and sentimental novels; chemical compounds used as doping not only act on the physical state of sportsmen but also on their mental state; narcotics lead to the degeneration of whole peoples, and so on. The pattern of the social form of the motion of matter in man is so interwoven with the biological, biochemical, and biophysical, that the need to demarcate them distinctly is obvious.

But while it is extremely difficult to do that, taking the single person as the object of investigation, it is much easier to take a system of higher order as the unit, namely, an ethnos in which the inevitable errors of analysis cancel each other out. It is difficult, of

course, to describe, let alone calculate, the drive of people of past ages. But there is a return stroke of thought. The work done by an ethnic collective is directly proportional to the tension of drive.¹⁵ Consequently, by calculating the material goods of an ethnos' activity, even if with big assumptions, we get as a result the expenditure of energy from which we can judge the initial outlay of energy, i.e. the level of drive.

Acts dictated by drive are readily differentiated from the ordinary actions performed because of the presence of a universal human instinct of self-preservation, both personal and species. They differ no less from the reactions evoked by external stimuli like, for example, invasion by foreigners. The reactions are short-lived as a rule and therefore without results. Self-dedication to some aim is characteristic of drive, i.e. an aim sometimes pursued for the whole of one's life. That makes it possible to characterize an epoch as regards drive. Having characterized the various phases of an ethnos' ethnogenesis in that respect, we get data for plotting a curve of the tension of drive with an admissible approximation; and when there are several such calculations for different ethnoi, and better still, superethnoi, we get a general pattern of ethnogenesis. That means we need to know well the history of events, because history, as a science of social relations, does not reflect this pattern, but rather another one, i.e. the spontaneous development characteristic of the social form of the motion of matter.

Doubts may arise about the legitimacy of counterposing the idea of the self-development of the social form of the motion of matter to the conception of excess with the gradually attenuating inertial motion that is inherent in ethnogenesis as variations within the species *Homo sapiens*. Biological changes can occur in man, it would seem, without fluctuation of the energy of the biosphere's animate matter, and without the effect of the tension of drive. Because in that case the optimum degree of adaptation to any conditions would be a blind alley for any type of development, whose outcome in that case would only be complete death of the population. But in order to reorganize itself physiologically and ecologically the species (or ethnos) must reject the organs (or habits) developed, i.e. move back from the dead end so as to find a new road. On the contrary, the origin of a mutation does not depend on the conditions of the environment, in other words an excess affects a population, necessarily prompting its altered part to look for ways to gain the lost paradise, i.e. the homeostasis long ago represented by Ovid as the golden age.

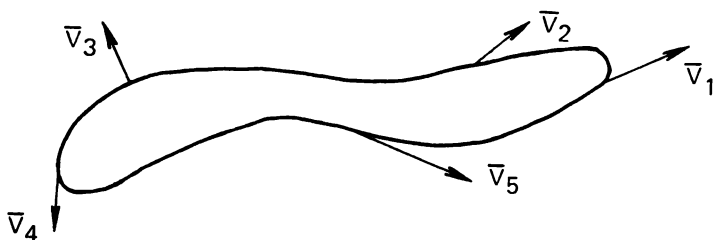


Fig. 1

The multi-vectorial character of the ethnic system in outline. Since there is no ethnogenesis, and cannot be, without drive, one can consider drive a necessary element of it that can be figuratively taken out of the brackets within which the local features of one ethnos or another remain. It is precisely this trait, common to all processes, that is important for distinguishing the pattern or regularity.

But no one has ever seen drive directly as a phenomenon, or ever will. Consequently we can only characterize it by its manifestations. But that is not even the most difficult thing, which is rather to allow for and understand the varied directional effect of the dominant that is generated by an ethnos' drive. Let us liken an ethnos to a physical body on which several forces are operating (see Fig. 1). The sum total of these forces will then be the vector $V_E = V_1 + V_2 + V_3 + V_4 + V_5 = 0$. The real effect of the observable motion will not equal the arithmetic sum (V_E) of these forces but rather the vector sum, i.e. the body will move to the right with an upward slope. If we remove the four components V_2, V_3, V_4, V_5 , the body will get a greater acceleration in the direction V_1 , i.e. the effect of its action will be greater, which means, in this case, that the acceleration arises through loss of part of the forces, and not through an increase in them, because the resultant force is greater and the effectiveness consequently greater.

Let me explain from some examples. In the eighth to fifth centuries B.C. Hellas teemed with drive. Triremes ploughed the Mediterranean and the Black Sea, colonies of Greeks spread from the Caucasus to Spain, and Ionia and Magna Graecia (in Italy) became more populous than the metropolis. But the Greek city-states could not co-ordinate their forces, because each *polis* valued its independence more than life, and equated subordination with reduction to slavery. Even during the mortal danger of Xerxes' campaign, Thessalians and Boeotians fought for the Persians without

ever forgetting that they were Greeks. They suffered cruelly for that, because the Athenians and Spartans executed the Persophile Greek prisoners as traitors, after the battle of Plataea, while sparing the Persians.

But as soon as the Peloponnesian and Theban Wars bled Hellas white, a co-ordination of forces and Alexander's campaign against Persia proved possible. The area of Hellenism¹⁶ was much wider than the area of Greek control, but these successes were achieved at the cost of a general lowering of the level of Greece's drive, when the culturally and economically least developed regions, Aitolia and Achaia, began to lay claim to a primary role, along with Macedonia. But they became stronger, while Athens, Thebes, and Sparta weakened. In other words, the total power of Greece as a system was reduced, so that it became easy prey for Rome. And in spite of the inertia of the Greeks' old potential power being sufficient to draw the Roman nobility to their culture, the weakening continued until the remnants of the Hellenes were converted into the nucleus of the Byzantine Greeks, fully transformed by the thrusting drive of the second and third centuries A.D. But that was already another process.

So the simplest observations lead, in the overwhelming majority of cases, to false conclusions unless allowance is made for corrections. A loss of the tension of drive will be taken for an upsurge, since a great many things are achieved in both cases. But a small number of 'great deeds' is also equally characteristic of a low and a relatively high level of drive, because a counterbalancing of the differently directed forces and temporary stabilization are possible in that case. One must study the entire process as a whole and not the separate moments of an ethnos' life. It will then be clear whether drive increases or wanes.

From a statistical study of the activity of big collectives manifested in mankind's history, it comes out what it is impossible to distinguish when analyzing the separate individuals, because of the multi-factor elements that govern behaviour. (1) The unessential factors cancel each other out; (2) historical processes are recorded in absolute time but biological and geological ones in relative time. Therefore only history can provide the natural sciences with an absolute chronology, getting means for empirical generalization from them in exchange, after which *ethnology* develops as *a science processing humanitarian materials by the methods of the natural sciences*.

I shall not undertake to judge whether a single gene or a combination of genes underlies drive, whether it is a recessive charac-

teristic or a dominant one, or whether drive is linked with the nervous or the hormonal sphere of physiology. Let the spokesmen of other sciences answer that. My task, the ethnological, has been fulfilled. We have observed a biogeographical development of the anthroposphere, along with the social, and the cause that evokes it. The essence of the phenomenon of drive, and its links with other elements of the biosphere, I shall examine below.

Induction drive. Drive has another extremely important property: it is infectious. This means that harmonious people (and to an even greater extent impulsive ones), who found themselves in a direct affinity to people with drive, begin to behave as if they also had it. But as soon as they are sufficiently far away from people with drive, they take on their own natural, psychological, ethnological image. That circumstance, without going into its special purport, is quite widely known; it is mainly taken into account in military matters. In them either men with drive are picked out, recognized 'by intuition', and formed into special task units, or they are deliberately dispersed among the mass of mobilized men in order to raise their 'fighting spirit'. In the second case it is reckoned that two or three men with drive can raise the fighting capacity of a whole company, and that is really so.

Engels wrote, in his article 'Cavalry', that a head-on battle of two cavalry units is extremely rare. Usually some turn the rear before the hand-to-hand engagement, i.e. 'the moral element, bravery, is here at once transformed into material force', the decisive element of which is 'dash', during which the soldier values victory (the ideal aim) more than his own life.¹⁷

It goes without saying that the cavalymen in a squadron are very unlike one another in their mental qualities; nevertheless a squadron behaves in battle as a single whole, with more or less drive. Its drive consists in its valuing victory more than life; the paradox is that a unit with less drive is beaten because the cavalry easily cut down the fugitives. But several hundred men can only be 'electrified' by induction, i.e. by the injection of a charge of drive into each individual. To continue the analogy, we thus get a drive field (like an electromagnetic field) that has quite different properties compared with the psychological features of the same people taken separately.

And, in contrast to the theory of 'the hero and the crowd', the essence is not that hero leads a military unit, but that due to the presence among the soldiers of several men with drive, but otherwise not outstanding individuals, the unit itself acquires the dash

noted by Engels, which sometimes even helps out an untalented commander. No one would try to compare the talents of Bennigsen, Wittgenstein, Wellington, and Blücher, for example, with that of Napoleon, but the dash of the Russian, English, and Prussian troops in 1813-1814 was greater than that of the French recruits, almost children.

But the most important thing, perhaps, is that it is useless in such critical moments, as a rule, to act on consciousness, i.e. on people's reason. And no arguments can help.

Recall the tragedy of Hannibal, who ran out of breath on the eve of victory in an unequal war. After the victory at Cannae he needed small reinforcements, a detachment of infantry, in order to capture Rome and so save Carthage. The arguments that his envoys and the supporters of the Barca family used in the Carthaginian council of elders were irrefragable. But those who do not want to hear hear not, and those who do not try to understand will not. The elders of Carthage sent the general the reply that as he was winning why he needed more troops, which doomed their grandsons to death.

But one cannot say that the Carthaginian rulers were stupid or cowards. But the influence of the absent one did not extend to them. And when victorious Hannibal returned to his native city, it turned out that his popularity was so great that his powerful rivals were forced to bow to him; only the ultimatum of the Roman Senate forced him to quit his native land. He himself took the decision to sacrifice himself because he understood that any attempt at resistance was doomed to failure.

Here is another example, this time from the history of literature. On 8 July 1880 Dostoevsky gave an address on Pushkin at a meeting of the Society of Lovers of Russian Literature. Its success, according to the recollections of eyewitnesses, was tremendous. But when you read the address it does not make any special impression. It is not in any way on a par with *The Karamazov Brothers*. The personal presence of Dostoevsky was evidently not least in the effect produced.

Induction drive is manifested everywhere. That is particularly obvious in our day when music or theatre lovers besiege the doors of the Conservatory or the Bolshoi Theatre. They very well understand that the impression of the same play, transmitted by radio or television, is not equivalent to the one they get in the theatre. Even though this example is microscopic compared with the phenomena of ethnogenesis, the pattern in both is the same.

A clear example of induction drive is the battle of Arcole in 1796. The Austrian and French armies were separated by a shallow but swamp stream across which a bridge had been thrown. Three times the French attacked, but were beaten back by the Austrian case-shot. Finally, when it seemed impossible to raise the soldiers again for a new attack, General Napoleon Bonaparte seized the banner and threw himself forward, and behind him, like iron filings drawn by a magnet, the whole column of grenadiers poured onto the bridge. The first ranks were again mown down by case-shot but the next ones succeeded in reaching the Austrian guns and killing the gunners, after which the French army crossed over and the battle was won. Napoleon himself survived only because he was knocked into the river from the bridge.

Let us analyze this example from the angle I have adopted. The army sent to Italy was one of the worst of all the French armies operating on the fronts at that time. It had been brought up to strength by conscripted peasants from the south of France, repeatedly bled white and trampled underfoot by the Parisians, badly trained, and even worse supplied. These were inert people without professional military skills. The quartermasters of this army were inveterate cheats and swindlers, and Bonaparte shot quite a few of them for embezzlement even before the campaign began. Consequently, the percentage of people with drive or *élan* was infinitesimal; and against them were moved the best regiments of the Hapsburg monarchy. Yet the French came out on top in four big battles (Lodi, Castiglione, Arcole, and Rivoli) because Napoleon knew how to inspire drive at the decisive moment (or rather to introduce, i.e. induce it), which his rival, General Alvinci, could not do. Some time later the induced drive disappeared, and Suvorov reduced the French successes in Italy to naught in three battles (Adda, Trebbia, and Novi, in 1799). One cannot blame the French generals (Jourdan, MacDonald, and especially Moreau) for this. They knew their profession well, but made efforts and not super-efforts. And Suvorov, like Bonaparte, could transmit his surplus drive not only to Russian soldiers but even to foreign ones. However, Suvorov could not influence the royal military council, because it met in Vienna, and a certain proximity was required for inducing drive (it cannot be perceived any more beyond a hundred kilometres).

But when Suvorov, after the lost Swiss campaign, which though heroic was a retreat, reached Vienna, and on entering the theatre blessed those present, no one counted that funny or out of place. On the contrary, he was awarded imperial honours, though it would

have been more useful not to have restricted his actions six months earlier.

I have dwelt on these examples in such detail in order not to recall the mass of similar cases, but the whole military and political history of developing ethnoi consists essentially of variants of induced drive of one kind or another, through which crowds of harmonious individuals are brought into movement.

But these variants are diverse, the decisive element being the degree of ethnic closeness. Suvorov could raise the spirit of Russian troops through the modus of patriotism to a greater extent than that of the Hungarian, Tyrolese, Croatian, or Czech soldiers who also were under his command. Napoleon affected Frenchmen much more strongly than Westphalians, Saxons, Dutchmen, and Neapolitans, as the campaign of 1812-1813 showed. One can say that the resonance of the stimulated drive was the less the further ethnoi of the person with drive and of the harmonious individual were from one another, other things being equal, of course. That once more brings the problem of drive, as an attribute, close to the problem of the essence of ethnic monolithicity. But resonance, like induction, is an energy concept. How far are they applicable to an ethnos?

As we have seen above, any process of ethnogenesis begins with the heroic, sometimes sacrificial feats of a small group of people (consortium), to whom the masses around them rally, and rally quite sincerely. One person or another may, of course, be sceptically minded, or simply egoistic, but after he joins the system arising under his eyes, his mental attitude no longer has great significance. That well-known phenomenon is explained by the induced drive and resonance I have remarked upon. And they help us understand the significance of people with organic drive who are the 'priming' for those that drive has infected. Without the former the latter fall apart as soon as the generator of induced drive disappears and the inertia of resonance runs out. And that usually happens very quickly.

Means of losing drive. Any ethnogenesis is thus a more or less intensive loss of the system's drive; in other words, death of the people with drive, and of their genes, which happens especially during arduous wars, because soldiers with drive for the most part die young, without having fully enjoyed their opportunities of passing on their qualities to posterity.

But the most interesting thing is that the tension of drive is not only lowered during war. That could easily be explained by the

death of individuals who sacrificed their lives too readily for the triumph of their collective. But drive is just as apt to fall in times of profound peace, and even more rapidly than in hard times. And the most terrible thing for an ethnos is the transition from peaceful existence to defence against the attack of another ethnos. Then, if death does not come, a collapse is inevitable, which is never painless. It is impossible to explain that by social causes or factors, but if we treat heightened drive as an inheritable attribute everything is clear.

During wars women value heroes going to fight, thanks to which the latter have time to leave progeny before being killed. The children grow up and continue to perform deeds prompted by their constitutions without ever having known their fathers. On the other hand, the moderate, tidy family man becomes the ideal in quiet times, while those with drive have no place in life.

We see the same pattern where the family is polygamous, and the woman seems to have no rights. The rapid multiplication of the Arabs during the Caliphate, and of the Ottoman Turks happened through polygamy. But the concubines for the harems were captured in fighting, and were maintained from the booty of war or incomes from conquered countries. Even marriage to a fellow-countrywoman was very costly, since the bride price had to be ensured for the family in case of widowhood. Poor nomad Bedouins were therefore satisfied with one wife, who had the right of divorce, because marriage was not a sacrament as in Christian Europe but a civil state. Muslim law, the Shariat, thus did not prevent a woman from choosing a husband to her taste and that taste corresponded to a vogue either for brave men who brought home booty or for good husbands who ensured prosperity of the home. In any case, both in the West and in the East, men with drive, unwanted, who sometimes hampered society, died without legitimate offspring. Their disappearance from the population was unnoticed, until external blows wrecked the ethnos; when that happened, it was found that the loss was irreplaceable. And then a phase of obscurity set in, i.e. of agony. We have the right, therefore, to affirm that ethnic processes are not a variety of social ones, although they constantly interact with them, which constitutes the diversity of the historical geography in which the two come together as in a focus.

Drive is thus not simply 'bad inclinations' but an important hereditary attribute that bring new combinations of ethnic substrata to life, transforming them into new superethnic systems. We now know where to look for the cause of it, because ecology and the conscious activity of separate people lose their validity. There re-

mains the broad domain of the subconscious, collective, however, rather than individual, the effect of the inertia of a drive impulse lasting for centuries. Drive is consequently a biological characteristic, while the initial impulse disturbing the rest inertia is the coming of a generation that includes a certain number of individuals with drive. By the very fact of their existence they upset the accustomed situation, because they cannot live by everyday humdrum cares without a goal that attracts them. The need to resist their surroundings forces them to unite and act together; so an initial consortium arises, which rapidly acquires certain social forms prompted by the level of the age's social development. Given favourable circumstances the activity generated by the tension of drive puts this consortium in a most advantageous position, whereas isolated men with drive 'were either driven out of the tribe, or simply killed' (and not just in antiquity).¹⁸ Things are roughly the same in class society.

Men with drive are doomed. But if they had always perished without accomplishing anything we would still be sacrificing babies, murdering old folk, devouring the bodies of killed enemies, and tormenting friends and relatives by witchcraft. There would not have been either the pyramids, or the Pantheon, or the discovery of America, the formulating of the law of gravitation, or space flights. But all that is, and the beginnings were already laid in the Palaeolithic. And today there would be Sumerians, Picts, and others whose names have long been forgotten, living on Earth, and not modern Frenchmen, Englishmen, Russians, etc.

Men of drive perish most tragically in the final phases of ethnogenesis when there are few of them and mutual understanding between them and the masses of Philistines is being lost. So it was in Byzantium in 1203. A smallish contingent of Crusaders, around 20 000 men, appeared at the walls of Constantinople to seat the son of the overthrown emperor on the throne. The Greeks could muster 70 000 troops, but did not resist, leaving the Viking bodyguard and the brave men who were manning the walls without help. The city was taken twice, on 18 June 1203 and 12 April 1204. The last time it was pillaged and reduced to ruins. The Crusaders lost one knight when storming the walls! So then, the men of drive were killed in the fighting and the others in their burned houses. Cowardice does not save. But there were the forces for resistance. The city could not only have been saved but could have won. And when the province came into the war, victory was won and Constantinople was liberated, to fall again in 1453 in similar circumstances.

And again there were many people who gave themselves up to be killed by the victors. So what kind of characters were they?

Sub-Drive

Harmonious individuals. However great the role of people with drive in ethnogenesis, their number in an ethnos is always infinitesimal, for I call people with drive, in the full sense of the word, those in whom this impulse is stronger than the instinct of self-preservation, both individual and species. In the overwhelming majority of normal folk these two impulses cancel each other out, which creates a harmonious individual, intellectually sound, competent, easy-going, but not superactive. Furthermore, the unrestrained fieriness of another person, impossible without a drive to self-sacrifice, is foreign and antipathetic to such people. And one must add that a large proportion of the individuals in developing ethnoi have just as weak a drive as in relict ethnoi. The difference is only that there are people with drive present and acting in dynamic systems who put their surplus energy into the development of their system.

But one must note that intensity of development is not always to the good of an ethnos. 'Overheating' is possible, when the drive gets out of the control of rational expediency and is transformed from a creative force into a destructive one. The harmonious individuals then prove saviours of their ethnoi, but also to a certain limit.

People of that bent are an extremely important element in the body of an ethnos. They reproduce it, moderate outbursts of drive, multiply material values after already created forms. They can manage quite well without drive until an external enemy appears. In Iceland, for instance, the descendants of the Vikings gradually lost drive. In the twelfth century they stopped their sea raids, in the thirteenth century ended the bloody strife between families, and when Algerian corsairs landed on the island in 1627, they met no resistance. The Icelanders let them burn their houses, rape their women, take children as slaves, and did not find in themselves the resolution to take to arms.

Let us assume that other explanations can be found in this concrete case. The Algerians were professional thugs; they probably exploited the factor of suddenness, which caused panic; the Icelanders were completely deprived of the aid of the metropolitan country, Denmark, drawn at that time into the Thirty Years' War and defeated. And, finally, according to my idea, the Icelanders'

drive also lost tension subsequently. Was it indeed so? Let us look at Iceland two centuries later.

In 1809 there was a Danish garrison in Reykjavik consisting of 30 or so soldiers, a captain, and the governor, who had a beautiful daughter. In June of that year, a brig flying the Jolly Roger appeared in the roads and called on the town to surrender. The Danish officer opened fire but was wounded by a cannon-ball from the brig; the soldiers lay down their weapons. The pirates landed; their chief proved to be an Icelander, earlier a well-known clockmaker Jörgen Jörgenson, now a pirate. This rascal, it came to light, was in love with the governor's daughter and demanded her for himself, while he permitted his pirates to rob the inhabitants, declaring himself the King of Iceland. Fortunately, the girl fell seriously ill. Though the Icelanders were no better. No resistance was put up to the handful of bandits. Thousands of descendants of the ferocious sea raiders, conquerors of England, Normandy, and Vinland, submissively bore the outrages of a few score of marauders, without putting up a resistance and even without saving themselves by flight. But against them had come not the fierce Moors who were contending with the royal navies of Spain and France, but a handful of the scum of North Sea ports. Isn't that a fall of drive?

But one must not take the majority for all. Individual people did not lose self-possession. Although they were not able to shake off the general cowardice and weakness, they were able to save themselves. Among them was the bridegroom of the beautiful Dane. He escaped in a fishing boat and, meeting a British frigate, asked for help. The British quickly reached Reykjavik, and forced the pirates to surrender under the threat of their guns, put them in irons, and liberated the governor and his daughter. The chief of the cut-throats was tried by an English court and acquitted because he had not infringed the interests of British subjects. And the Icelanders, after six weeks under the power of the pirate king, returned to their own affairs, to what alone they were capable of as harmonious, civilized folk, harmless to everyone except themselves. Because heightened defencelessness does not always promote the flourishing of an ethnos.

'Vagrants', 'soldier tramps', and 'degenerates'. Finally, there is almost always a category of people in an ethnos with 'negative drive', in other words whose actions are governed by impulses with a vector the opposite of drive.

The Icelanders, for example, had not lost the capacity to work to feed their families and even to care for the sources of life, the her-

ring fisheries, the colonies of eider ducks (where they collected down), and the small meadows among the rocks needed to feed cows. But the subethnic formations in the urbanistic agglomerations of antiquity were far worse variants. The demoralized descendants of Roman citizens who had lost their plots of land (*parcellae*) crowded into Rome in the first century A.D. They huddled in the closets of the five-storey houses, breathed the stench of the cloacae, the drains by which sewage was emptied into the Tiber, drank wine from unhealthy lead vessels, but persistently and brazenly demanded 'bread and circuses' from the government. And it was forced to give in because these crowds of sub-drive people could sustain or support any adventurer with drive who wanted to carry out a coup d'état, so long as he promised them an additional issue of bread and a more splendid spectacle in the circus. But they did not know how to defend themselves against enemies, and did not want to know, because it was hard to learn the art of war. The individual of sub-drive supposed, by his own invincible logic, that no one could foresee the future, since he himself, the recipient of a bread ration and spectator of circus shows, did not know how to make a forecast on the basis of probability. He divided the information he received into two parts: pleasant and unpleasant. Bearers of the latter he considered his mortal enemies, so that he made short work of them at every opportunity.

As a result Alaric took Rome, although the Goths were fewer in numbers than the men in Rome trained and capable of fighting, not to mention in Italy. But even that shame taught the Romans nothing. The Goths easily ingratiated themselves with the defeated, and left. That provided grounds for immediate smugness. But when Gaiseric again took Rome, declaring himself avenger of the destruction of Carthage, he easily carried out a reprisal massacre among the sub-drive types, that no one wanted to save, unlike the harmonious, harmless Icelanders. Rome did not recover after the Vandals' pogrom. But I somehow don't feel inclined to pity it.

There was a similar situation in Baghdad, which was captured not by strange barbarians but by Turkish slaves bought by the Caliph. In the ninth century A.D. the Arab troops were extinct. Their descendants had preferred to occupy themselves with petty trading and idle chatter in the bazaars. In order to guard the person of the Caliph, and sometimes, too, the frontiers of the Caliphate, professional soldiers were employed; they were bought in the steppes of Central Asia and the deserts of Nubia. They turned out to be the sole real force in Baghdad and began to displace Caliphs at their own discretion. The population of the huge city wept, abused one

another, and joked, but preferred to live without working and to die kneeling, anything except to defend themselves.

Loss of a system's drive or, correspondingly, a change of ideal, yields such consequences. The slogan 'Live for oneself' is an easy road to black ruin.

The drive of the individual is connected with any capability—high, low, or medium; it does not depend on external effects, being a feature of the individual's constitution; it has no relation to ethic standards, easily generating equally feats and crimes, creation and destruction, good and evil, excluding only indifference. And it does not make a person a 'hero' who leads the 'mob', because most people with drive are in fact members of the 'mob', determining its potency and degree of activity at one moment or another. The group of people with sub-drive are most colourfully represented in history by 'vagrants' and professional mercenary soldiers (*land-sknechts*). They do not change the world and do not preserve it, but exist at its expense. Because of their mobility they often play an important role in the fates of ethnoi, making conquests and revolutions together with the people with drive. But if the latter can manifest themselves without the former, the former can do nothing without people of drive. They are capable of begging and of robbery, the victims of which are bearers of null drive, i.e. the bulk of the population. But in such a case the 'vagrants' are doomed; they are tracked down and wiped out. But they appear in each generation.

Gradations of drive. It is tempting to compare people with drive with 'heroes' who lead the 'mob', and to call the 'vagrant soldier' a 'support', but in fact, the mechanism of historical action is not so simple. The Spanish Hapsburgs and the French Bourbons, with the exception of the founders of the dynasties, were mediocre people, no less than the bulk of their courtiers, among whom adventurist-ministers like Fouquet and Law, or Manuel Godoy appeared from time to time. But the hidalgo and chevalier, the negotiants and corsairs, missionaries and conquistadores, humanists and artists all created such an internal tension that the policy of Spain and France in the sixteenth and seventeenth centuries, if one depicts it as a component of the ethnogenetic process, reflected the high drive of these ethnoi.

In spite of people with drive often leading popular movements, it is more correct, therefore, to call them 'pushing' rather than 'leading' because, without enough of them, who die in obscurity, it

would be impossible to break a tradition, i.e. inertia of the masses, solely on the basis of 'obedience to enthusiasm'.

I have thus noted three gradations of diminishing drive, though the division may be more detailed where necessary. It is therefore correct to call the third characteristic type 'people with sub-drive'. But the main thing is not to confuse these types with class, estate, or ethnic subdivisions. Anyone of the latter includes all three types, but in different combinations and with different dominants. A modification of their ratios within an ethnos, either numerical or vectorial, determines the process of ethnogenesis.

Hannibal and Carthage. Now let me look again at the personality of Hannibal and examine his behaviour during the Second Punic War from my angle. The Barca family was one of the richest in Carthage. Hannibal's father, Hamilcar, increased his wealth by subduing Numidia and Spain, where his son Hannibal was, in fact, king. The war with Rome did not bring Hannibal any profit. On the contrary, the risk was extremely great. From Hannibal's angle it was not he who needed it but his fatherland Carthage. But if a stray arrow had struck the breast of the Carthaginian general, no booty would have compensated for that, the more so that he did not need the money. But perhaps he was carrying out the will of his fellow-citizens? No, they had not asked him to fight, and at the decisive moment refused to send reinforcements; they detested him with all the passion a Philistine is capable of who feels it necessary to do something for the common weal rather than for himself. In these cases people of sub-drive immediately begin to think up excuses that will let them dodge their responsibilities. Of course, that is by no means far-sighted, but people are not always foreseeing, which leads even to fatal consequences. In short, for his personal good, Hannibal should have stayed in his Gades, and amused himself; the Carthaginian elders should have supported their general with all their forces; the Numidian cavalry should have deserted so as not to die for the hated Phoenician colonizers; the Spanish slingers should have risen and recovered their freedom. But it was all the other way round! And because of what happened the rich Punic literature of Carthage disappeared. The valleys in the gorges of the Atlas Mountains were exhausted and became derelict because the burden of supplying the city of a million, Rome, with bread fell on this country. The freedom-loving Berbers, saving themselves from the cruelty of the Romans, moved south and their herds trampled the still green plains of the Western Sahara which began to be turned into a stony desert. But in the time of Hannibal rivers

flowed in the Northern Sahara, elephants roamed, and horses grazed, but after 2 000 years of the anthropogenic effects of Roman and Arab conquerors that whole rich fauna was replaced by the camel alone.

But if we want to find the cause of such immense changes in ethnography and physical geography, it becomes clear that the sub-drive of the Carthaginian Philistines imposed a heavy load on the drive of the Barca family. It was that which led them first to defeat in the war, and then to death on the walls of besieged Carthage; and then, as a consequence, it resulted in the conquest of Numidia, after which followed annihilation of the landscape.

But could it have been otherwise? Of course! Timely aid to Hannibal would have meant the destruction of Rome, liberation of the Samnites and of the Cisalpine Gauls, stopping of hyperbolized, artificial urbanization and, consequently, preservation of the beech and oak forests on the Apennines, of the vineyards around Capua and Tarento, and of the Etruscan townships in the valley of the Arno. The wealth of Gaul and the art treasures of Hellas would have been saved for a long time; but there would not have been the Appian Way nor, possibly, Latin in the schools of future ages. But the development of the relations of production would have followed its own path in that situation. In place of the antique slavery, which had outlived itself, there would have come feudalism, sooner or later. The rise and fall of drive does not influence the social development of mankind, understanding by that the succession of socio-economic formations. But how can emotion alter anything in the element of consciousness, i.e. intellect? Now we shall see why!

The Fading of Drive

Flash and ashes. One can now say that the 'take-off moment' is the sudden appearance of populations with a certain percentage of people with drive. The phase of becoming is a rapid increase in the number of individuals with drive as a result either of multiplication or of incorporation. The phase of existence is a diminution of their number, and the appearance of people of sub-drive. The phase of decline is the replacement of people with drive by sub-types who, by virtue of the peculiarities of their stamp, either ruin the ethnos altogether or do not succeed in doing so before invasion by foreigners from outside. In the latter case a relict remains consisting of harmonious individuals, which becomes part of the biocoenosis of the region they populate as the top final link.

All peoples (ethnoi) that we call primitive only because their unrecorded history lies in the darkness of time follow this intraethnic evolution. But we see the same picture in history; it is particularly clearly visible in subethnic entities, for example, in the Siberian Cossacks.

In the fourteenth century, the descendants of Russified Khazars changed the Russian name *brodniki* (roamers) into the Turkish *kazaki* (Cossacks). In the fifteenth and sixteenth centuries they became the terror of the Nogai steppe, and, carrying the war into Siberia, killed the last khan of the Nogai, Kuchum. Having received support from the Moscow government, the Cossacks crossed Siberia in one century to the Pacific Ocean. Needing reinforcements and replacements, they gladly accepted Great Russians into their bands, but always distinguished the latter from themselves. It was accepted to call them all together explorers.

The Russian explorers of the seventeenth century were wilful, tough, unyielding people afraid of neither the authorities nor the harsh northern climate. From 1632, when the Cossack lieutenant (*sotnik*) Pyotr Beketov set up winter quarters on the Lena, to 1650, i.e. until the Anadyr trek of the Cossack Semyon Motora, they traversed the whole north-east of Siberia and collected sable tax to a total no less than what the conquistadores got from American gold. The Cossack-conquerors were people of indomitable courage and primordial initiative. They taxed tribe after tribe and now and then ventured into the Arctic Ocean on *kochas* (primitive Siberian river boats built of roughly hewn planks joined together by tree roots) intended specially, as it were, for shipwreck. But already at the end of the seventeenth century the trail-blazers' character began to change, and instead of voyages they sent non-committal replies: "Our boats are weak and the sails small. And we don't know how to make big boats as in olden times." In the eighteenth century the Russian population of northern Siberia had crystalized as it were. Initiative and activity disappeared without trace and courage itself was replaced by timidity.¹⁹ Finally, in the nineteenth century the descendants of the Cossacks were defeated by the Chukchi and became state serfs and the rightless slaves of any official sent to the North from the south as punishment for service misdemeanours. Since the descendants of the Spanish conquistadores, and of the French colonists in Canada (with the exception of those who intermarried with the Indians), and of the Portuguese and Arab merchants in the basin of the Indian Ocean, lost drive in a similar way, and in the same chronological period, while in past epochs the same fate befell the descendants of the Vikings and the

Greeks, one can consider the process described to be a regular, law-governed one. The squandered energy of drive left behind it the ashes of the flash.

The greed of the conquistadores, the pride of Alexander the Great, the vanity of Sulla and the passionate conviction of Jan Huss, it would seem, were dissimilar phenomena. Outwardly it seems so, but the foundation of these, and of a host of phenomena and qualities similar to them, is the same, namely drive. And here is why. In all the examples quoted it is stressed that the attribute of drive or impulse to exceptional activity was characteristic of the population and not just of a person. I concentrated attention on individual personalities with a compositional aim, so as to describe the attribute itself most clearly. In fact the processes are more complex, though not to such a degree that it would be difficult to analyze them, by adopting a system and consistently following it.

It appeared, at first glance, that the higher the drive of a person or system, the richer is the creative life of the social group, and the more lavish the culture of the ethnos. And since the epoch of the Renaissance in Italy abounded in talent, one can treat it as the highest phase in ethnogenesis. But in the fifteenth century the Italian ethnos was experiencing a difficult period. In Milan the condottieri Visconti and Sforza had established themselves firmly, and in Florence the Medici; while in Rome the Popes openly practiced nepotism and simony (the buying and selling of benefices), and in Naples and Sicily Spaniards ruled, coarse, aggressive, and remote from humanism. The traditions of the city republics, and of the patriotism and valour that had enabled the Italians to free themselves from the cruel authority of German emperors, were disappearing everywhere. On that general decay such flowers grew as the artists Fra Angelico (Il Beato) and Botticelli, the humanists Giovanni Pontano, Lorenzo Valla, Marsilio Ficino, and Pico della Mirandola.

But the 'high Renaissance' — the first half of the sixteenth century, celebrated for the names of Leonardo da Vinci, Raphael, Michelangelo, Titian, Ariosto, and Machiavelli, occurred on the background of a series of wars between Spain and France, in which Italy was not a participant but the arena of contending despoilers. These wars began with a French invasion of Italy in 1494, and up until 1525 France claimed power in Italy. The victor, Emperor Charles V, after victory over the French at Pavia, was forced to throw troops in to suppress the resistance of the Italians, which was realized by the barbarous destruction of Rome in 1527.

No, one cannot say that the Italians did not try to rid themselves of their tyrants, for which they sometimes used the coming of foreign troops. In 1494, for instance, when the French were approaching Florence, the Medici family was overthrown there and power passed to the Dominican monk Savonarola. It did not become easier under him, or after his death in 1498. The re-created republic proved quite powerless, and in 1512 the power of the Medici family was restored. A second attempt to reconstitute the republic was made with the involvement of the great artist Michelangelo in 1527, but it, too, was suppressed by the imperial troops in 1530.

In the second half of the sixteenth century Italy was in Spain's sphere of influence. The principles of the Counter-Reformation adopted by the Council of Trent in 1563, in essence a new Catholicism, did not encounter popular resistance in Italy, but met isolated protests from intellectuals. Catholic reaction easily coped with them. After the burning of Giordano Bruno, the jailing of Campanella, and Galileo's renunciation, a complete decline set in that lasted around 150 years. Italy's drive ran out. How are we to explain the non-coincidence of the 'golden ages' of drive and creation?

Weak but active drive. Apart from the clear examples I have described, there apparently must be more weakly expressed variants in which the people with drive do not go to the stake or to the barricades (Huss and Sulla), but sacrifice much for their aims. The creative burning-out of Gogol and Dostoevsky, the voluntary asceticism of Newton, the breakdowns of Vrubel and Mussorgsky, were also examples of the display of drive, because exploits of science or art call for sacrifice just like feats of direct action. Scholars and artists also play an important role in the processes of ethnogenesis, though a different one from the figures of political history. They give their ethnos a specific colouring, and so either single it out from others or promote interethnic communion thanks to which superethnic entities and cultures arise. The people with drive, even if less tense, included the nameless builders of the Gothic cathedrals, the old Russian architects, the spinners of fairy tales, and so on, who chose these difficult professions from an inner compulsion. Understandably, they also included the talented chroniclers who fall within this section according to my classification.

Let me draw attention to the relatively weak but creative degrees of a system's drive. There are two, one on the rise to the 'overheating' of the system that I have called the 'acme' phase,

and the second on the way down, marking the transition to the phase of decline that I have called 'inertial'. Figuratively speaking, both these moments are a bending of the curve of plus-minus growth of an ethnic system's drive, and even in the phase of decline the full loss of tension is still remote. At this relatively low level of drive a person's stereotype of behaviour and social imperative are not such as to push him imperceptibly to voluntary death for the sake of an ideal or even an illusory goal chosen by himself. But the tension of drive existing in a person in this period is enough for him to strive for this goal and even to alter the reality around him a little. In this case, if he has the appropriate abilities, he will devote himself to science or art, so as to convince and enchant his contemporaries. If he has no capacities of that kind he accumulates wealth, makes a career, and so on. Historical epochs in which this level of drive predominates are regarded as a flowering of culture, but one of two possible violent periods follow in their wake: either there is the overheating already described with a rise of drive, or decay will set in with its slow decline. The Renaissance (fourteenth and fifteenth centuries), for instance, was followed by the Reformation (sixteenth and seventeenth centuries), and in the wake of the horrors of the Thirty Years' War, the Huguenot wars and dragonnades, and also the fierceness of the Roundheads of Cromwell, who, in Engels' expression, 'is Robespierre and Napoleon in one',²⁰ there set in a relatively quiet period in the eighteenth century similar to the Renaissance in level of drive, but not in its vector. At first there was a rise in level and then, after the cataclysm, a fall, which meant that the percentage of people with drive fell, and their place was taken by people who preferred safety to risk, accumulation to rapid success, a quiet, comfortable life to adventures. They were no worse and no better than the people with drive; they were simply different.

This process has never been recorded anywhere in the sources, because it is only obvious from broad comparisons of the characteristics of ages and countries. It can therefore only be described by means of ethnology and ethnic history.

But can one say that people with a lower tension of drive (artists, poets, scientists, etc.) do not play any role in ethnogenesis? Or that this role is less than that of generals, conquistadores, heretics, or demagogues? No, it is not less, but it is different. I have shown that the personality with even great drive can do nothing if he does not find a response among his fellows. And it is art that is the instrument for the appropriate attitudes and moods; it forces hearts to

beat in unison. One can therefore affirm that Dante and Michelangelo did no less for the integration of the Italian ethnos than Cesare Borgia and Machiavelli. The Greeks held Homer and Hesiod in equal esteem with Lycurgus and Solon not without reason, and the Persians even preferred Zarathustra to Darius Hystaspis. While drive is penetrating an ethnos in various doses there is development as creative achievement, but since one cannot be a poet without readers or a scientist without teachers and pupils, a prophet without a flock, a general without an army, the mechanism of development lies not in certain persons but in the system's entity of an ethnos that has drive of some degree or another.

The members of persistent ethnoi have many merits that are always noticed and highly valued by neighbours and travellers, who extolled the 'newly discovered' Indians, Polynesians, Eskimos, Tanguts, Evenks, and Aini. Anatomically and physiologically they were full-blooded people, wholly adapted to the relief and landscape of their areas, but with so little drive that development of the ethnoi had subsided and faded out. Even when an individual with drive was born by chance among them, he sought to apply himself among neighbours rather than in his own homeland; in the fifteenth to eighteenth centuries, for instance, Albanians made a career either in Venice or in Istanbul. Drive is even lower among modern Bushmen, Veddas, Gonds, and the descendants of the Mayas in Yucatan. And apathy, i.e. degeneracy and death, is even lower, but that is already a theoretical extrapolation, because neighbours find time in practice to deal with an enfeebled ethnos before it dies out.

It follows from what I have said that the hardest period in the life of an ethnos is the transition from the highest phase (acme) of the white heat of drive to the thoughtless quiet of homeostasis. The goals and tasks are still the same, but the forces are waning. The percentage of harmonious people and those with sub-drive grows, lowering and then reducing to naught the forces of creative, patriotic persons, who begin to be called fanatics. It is precisely the absence of the inner support of 'their own' that determines the death of ethnoi through rivals that are small in numbers but have drive. As the twentieth-century Polish writer Bruno Jasienski said: 'Beware of the indifferent'.

I have already said above that the death of an ethnos, either through extermination or by way of assimilation, is preceded by a simplification of its internal structure and impoverishment of its stereotype of behaviour. Mediocrity, annihilating the extremal individuals in its environment, deprives the collective of needed resistance, as a consequence of which it itself becomes a victim of its

neighbours, with the exception of those rare cases when mountains or deserts serve as a last refuge of an isolated relict. Between phylogenesis and ethnogenesis there is a certain but not full analogy, while progressive social development is governed by quite other laws and patterns (exhaustively described in the theory of historical materialism).

Bastards. If the loss of drive, as an extremal attribute, went beyond social conditions, it would be rapid, obvious, and in practice without results. But in the complex collisions of ethnic history, with a constant interaction of socio-economic processes, the role and significance of loss of drive are glossed over to some extent. I shall therefore return again to history and take an example from a well-studied period, so as to avoid misunderstanding based on the incompleteness of the material.

The rush for colonies (because few returned from the East and West Indies) and syphilis, which yielded defective offspring, destroyed West Europeans with drive. Syphilis infected people selectively. Seamen and soldiers suffered most of all from it; at that time they were volunteers, i.e. people with drive, or vagrant soldiers, i.e. people of sub-drive. The inert part of the population in towns and villages suffered less from these two scourges, so that the drive of the system was lowered. But that proceeded more slowly than might be expected. There was a circumstance that prevented a lowering of drive.

The point is that people with drive, before perishing in wars, manage to spread their genes in the population. The thirst for action impelling a youth to a bloody fray, aroused a rapture in girls of his own age that they expressed in a way simple and affable for them. And in an age of high drive public opinion did not condemn these girls too hardly. Sanctimoniousness came together with the cooling of drive. The word 'bastard' was not insulting in the Middle Ages. The Lord High Constable of France (Commander-in-Chief of the French armies) under Charles VII, Jean Dunois, was called the Bastard Prince. And there were many like him. During the Hundred Years' War the extramarital sons of grandees and of girls of the third estate, won themselves knightly honours and names as leaders of the vagrant mercenaries, i.e. men of sub-drive, who filled the 'white bands'. These bands 'consisted of poor but implacable, strong men who only sought personal gain, both in their own country and abroad'.²¹ In 1431 in the war for Lorraine, the Duke of Burgundy, Philip the Good, took into his service the Bastard of Hümières, the Bastard of Brimen, de Neuville, and Robinet Hunderp-

feifer, a bastard of the Schinderhannes family; and they ensured Philip victory.²²

It was even simpler in the Orient. Arabs, Turks, and Mongols, who practiced polygamy, considered all their children 'legitimate', even those of captive women. The difference between the children of the first wife and of concubines was only taken into account for succession to the throne, but for most of the population that was not essential. Women possess the same capacities to pass on genes as men, and also have drive. The dilution of the primordial gene fund in harems therefore created variations of the level of ethnosocial systems' drive more painlessly than in Europe.

Such a stereotype of behaviour made the attribute of drive an erratic one, which undermines the idea that drive is inherent in a certain class. If even a chance coincidence can generate such a correspondence, it will already be disrupted in the next generation (even when there is an operative police of morals) by the appearance of so-called 'illegitimate' children who, forming part of another social groups, will behave according to the standard of their drive inherited from their actual and not legal forebears.

In France before the seventeenth century, for example, the nobility were not a closed caste. In fact any energetic person in the king's service could become a nobleman. Richelieu's edict introduced certain limitations into that. As a check, after the Huguenot wars, for instance, a person declaring himself a nobleman had to prove several generations of noble forefathers. Nevertheless, under Louis XIV almost all ministers came from the bourgeoisie, and several illustrious names in the armed forces, and in literature all the great names except three (Fénelon, La Rochefoucauld, and Madame de Sévigné) were commoners.²³ They had a leading role in the feudal kingdom because of their business-like qualities, which their 'legitimate' forebears evidently did not possess; otherwise those would have been promoted by Philip the Handsome or Charles the Wise, when there were in fact no estate restrictions in the royal service.

In fact, if people with drive were concentrated in one social group, the first sanguinary war would wipe out the whole population of them and commencing ethnogenesis would be cut off right in the first phase. But that, as we have seen, does not happen.

Then, ethnic regeneration is often observed, i.e. restoration of an ethnos' structure after an upheaval, the saviours of the *patria* displaying drive similar to what its founders possessed, and infinitely more than the drive of those who were their natural, legitimate forebears. There have been bastards in all epochs and ages, and in

all peoples, though their appearance is seldom noted in the sources (but that is not grounds for considering that the unremarked did not exist).

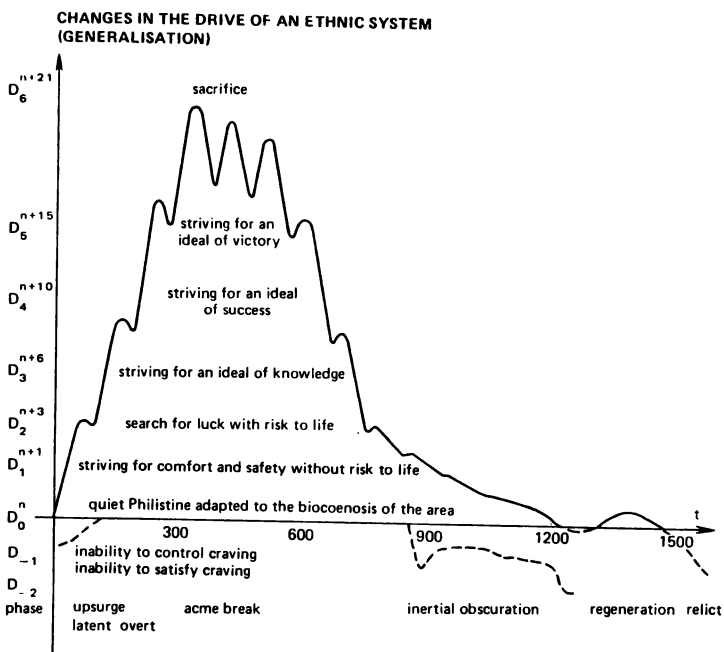
The mechanism of ethnic regeneration is as follows. Usually, among the subethnoi that form an ethnos, there is one that is more initiative, and is consequently the leader. In it the drive of individuals is intensively converted into deeds, so that expenditure of drive proceeds rapidly. It is replenished from the other subethnoi, but there is also a feedback when drive genes are disseminated throughout the population through extramarital connections, with which the baby remains in the environment of its subethnos, or rather in the family of its mother. The expenditure of the system's drive is therefore retarded.

When a leading subethnos that has exhausted its possibilities collapses, one of the peripheral subethnoi takes up the torch and the process of ethnogenesis, ready to break down, continues. That would not happen with regulated marital relations, because the parents would have to take the child with them into the thick of human passions where it would have to share their doomed fate. It will preserve its life at the price of loss of genealogy.

Every regeneration of an ethnos of course entails a shift of cultural development, but within the limits of a given system, thanks to which the ethnos prolongs the period of intensive creative life and not of barren existence. Just that is enough to bless the combination of instincts that infringe rational standards of behaviour. Nature is stronger than people's intentions.

What cements an ethnos? Having answered the question of the nature of the dynamics of ethnic becoming or ethnogenesis, I have come to a no less important matter, the cause of ethnic stability. Many ethnoi exist in a relict state with such weak drive that it can be regarded as nil in practice.

Accumulated energy, the material base created, experience of government, and other socio-technical factors counter the tendency to decay. Since an ethnos always functions throughout its life within the limits of some superethnic system, there is an 'energy' exchange with elements of the supersystem. This results in the level of drive, from which it follows that the functioning of the external system of the ethnos' connections may lead both to an acceleration of development or to decline, and even to death, if the magnitude of the exchange exceeds a certain critical value, different in principle for the different moments in the ethnos' life.



Now I have the right to pose the question of what precisely cements different people, who are often dissimilar to one another, into an entity, a whole, called ethnic. With another frame of reference, a social one, this role is performed by relations of production, which have a capacity for spontaneous development. But there is another frame of reference for ethnoi; and history, which studies events in their connections and sequence, and which beautifully describes the rise and disappearance of social institutions, is unable to answer why, for example, the Athenian was closer to his brother the Spartan than the Phoenician peacefully trading with him? It only notes that the Athenians and Spartans were Greeks, i.e. a single, politically divided ethnos. But what is an ethnos? And what links its members together? History does not answer that, which means we must turn to nature.

We already know where the difference is hidden, between ethnic history (of a phenomenon of the forces of nature) and the history of culture, created by the hands and intellect of people. Life blazes up and is completed by death, which is perceived as the natural end of

the process, even the desired end, especially when it is timely and painless. That is why all processes of the biosphere are discontinuous (discrete); in continuous development there is no place for either death or birth.

But everything is the reverse in the history of culture. Palaces and temples take years to build; the landscape is reconstructed over centuries; scientific works and poems are written for decades — all in the hope of immortality. The hope is justified because man's creations are granted not death but slow destruction and oblivion. There is no drive in creation; there are only crystals of it, invested in inert matter by the creators of form, i.e. by people, or rather by flame of their passions and feelings. These crystals, alas, are also capable of development and transformation, because they fall out of the conversion of the biosphere. The right to death is the privilege of the living!

That is precisely why the cultures created by ethnoi and studied by archaeologists survive the former and come into the fallacies and misconceptions of the latter, forcing them to identify the creation with the creator, and to look for analogies between things and people. This temptation is the more dangerous because many people remain in a population, and even more things and a certain quantity of ideas, after the departure of people with drive from it. Culture, like the light of extinct stars, thus deceives the observer who takes the visible for the existent. But the transition from description to explanation of a phenomenon makes it necessary to employ a different apparatus of investigation, viz., a hypothesis, i.e. an unproven proposition, but one that corresponds to all the known facts and explains their interconnections. And here we pass into the domain of the natural sciences.

NOTES

¹Karl Marx and Frederick Engels. *The German Ideology. Collected Works*, Vol. 5. Progress Publishers, Moscow, 1976, p 255.

²Frederick Engels. *The Origin of the Family, Private Property and the State*. Progress Publishers, Moscow, 1973, pp 173-174.

³*Ibid.*, p 161.

⁴*Ibid.*, p 98.

⁵G.W.F. Hegel. *The Philosophy of History*. Translated by J. Sibree. Dover Publications, New York, 1956, p 23.

⁶Arrian. *Anabasis of Alexander in two volumes*, Vol. I. Harvard University Press, Cambridge, Massachusetts; William Heinemann Ltd., London, 1946, pp 177, 287.

⁷*Ibid.*, V.25 (Vol. II, p 83).

⁸*Ibid.*, V.27 (Vol. II, p 93).

⁹*Ibid.*, V.26 (Vol. II, pp 87-88, 89).

¹⁰*Ibid.*, VII.27 (Vol. II, p 297).

¹¹*Ibid.*, VII.29 (Vol. II, p 301).

¹²Augustin Thierry. Letter No. 12. *Lettres sur l'histoire de France*. Jouvett et C^{ie}, Paris, 1881, p 182.

¹³See: Yu.V. Bromley. *Etnos i etnografiya* (Ethnos and Ethnography), Nauka, Moscow, 1973.

¹⁴See: V.I. Kozlov. *Dinamika chislennosti narodov* (The Dynamics of the Size of Peoples), Nauka, Moscow, 1969, p 56.

¹⁵The tension of an ethnos' drive is the quantity of drive existing in the ethnic system divided by the total number of persons constituting the ethnos.

¹⁶Hellenism is taken to mean the culture that arose as a result of Alexander's campaigns, when the Hellenist elements were mixed with oriental ones.

¹⁷Karl Marx and Frederick Engels. *Collected Works*, Vol. 18. Progress Publishers, Moscow, 1982, p 310.

¹⁸V.I. Kozlov. What Is an Ethnos. *Priroda*, 1971, 2: 72.

¹⁹V.G. Bogoraz. New Tasks of Russian Ethnography in Polar Regions. *Trudy Severnoi nauchno-promyslovoi ekspeditsii*, 1921, 9: 20-21.

²⁰Karl Marx and Frederick Engels. *Articles on Britain*. Progress Publishers, Moscow, 1978, p 13.

²¹Karl Marx. Chronological Excerpts. *Marx/Engels Archives*, VI. Gospolitizdat, Moscow, 1939, p 347 (Russian translation).

²²*Ibid.*, p 348.

²³Augustin Thierry, *Essai sur l'histoire de la formation et des progrès du Tiers État*. Meline, Cans et C^{ie}, Brussels, 1853, pp 236-237.

THE BRIDGE BETWEEN THE SCIENCES

in which an attempt is made to explain the described phenomenon of ethnogenesis by comparing the data of allied and related sciences. In contrast to the foregoing, this part of the book is hypothetical, but any other explanation will not affect the description of the character of ethnogenesis given above

The Field in a System

Ethnocoenosis. Up to now, while ethnographers have built classifications by type indicators, namely, language, somatic traits (races), mode of carrying on the economy, religions, levels and characteristics of technique, the gap between superethnoi and ethnoi has seemed unfillable. But as soon as we draw attention to the systems links, it disappears. The place of descriptive ethnography is being taken by ethnic history, which records both the stable relationships between the varied elements of a superethnic system and its interaction with neighbouring systems. And then it turns out that what were considered abstractions, do really and ponderably exist. So, then, terms like 'Hellenic culture' (including Roman possessions), 'the Muslim world', 'European civilization', which has spread to other continents, 'the Middle Empire' (China is ethnically an extremely mosaic country), or 'Eurasian nomad culture' (Turks and Mongols) are not simply words but technically materialized and socially formed designations for ethnic entities of an order higher than those accessible to observer ethnographers.

In the period preceding the origin of writing, ethnic entities of this order obviously arose no less frequently and passed through the same phases of development, leaving after them memorials of flint chippings, middens, and shards of ceramic vessels, and sometimes also being preserved as 'tribes' in inaccessible jungles or on separate islands.

But if that is so, then many isolated peoples, considered to be at 'early' stages of civilization, with an extremely low level of technique, are the final and not the initial phases of ethnogenesis. Such, for example, are the pygmies of the tropical forests of Africa, the aborigines of Australia, the palaeoasiatic ethnoi of Siberia, the Tierra del Fuegians, and the mountain people of the Pamirs. The

degree of adaptation to the natural conditions is so high that it enables them to maintain their existence as part of the biocoenosis, without resorting to improvement of tools and weapons. But this system of relationships with natural and ethnic surroundings puts a limitation on growth of population. That is particularly noticeable in New Guinea, where the Papuan youth, until recently, was not given the right to have a child until he had brought in the head of a man from a neighbouring tribe, having learned his name, because the number of names was strictly limited. In that way the Papuans maintained their balance with the natural resources of the area they inhabited. That was drive close to the zero level. In other respects they do not yield place to dynamic peoples.

Persistent ethnoid as a rule constitute a stable system that includes, besides the total human stock, a certain number of elements of living nature and technically organized inert matter. This means that the ethnocoenosis (as I call the complex set I have described) includes, along with people, certain domestic animals, cultivated plants, and things as objects of use. The Eskimos are inconceivable without dogs, igloos, and kayaks, even when they attach internal combustion outboard motors to them. The Tungus are associated with reindeer and sled-dogs, Arabs with camels, Pueblo Indians with corncocks, and so on. If the disturbance or breach of ethnocoenosis is not great, it only deforms an ethnoid, but if it is great it destroys it.

Sometimes, but far from always, disruption of ethnocoenosis causes the extinction of an ethnoid and, along with it, of animals and plants associated with it. Often only the system is destroyed, while the components become part of other ethnoids and ethnocoenoses. But it also happens that with complete extinction of an ethnoid, and disruption of the ethnocoenosis, a recurrence of ethnogenesis continues to be observed, with certain deviations from the original type. That is called the succession of culture. The rhythms of Roman culture, for instance, continued to be felt throughout Europe for many centuries after disappearance of the Roman ethnoid and after the Roman Empire perished. But if that is so, then we come up against the concept of ethnic inertia. But inertia is a physical phenomenon. And besides, how can there be inertia of a body that has ceased to exist? Something is obviously missing in my analysis, which means I must introduce a new concept. Anticipating the course of my thought, I say directly that an *ethnic field* exists in nature, like the known electromagnetic, gravitational, and other fields, but at the same time different from them. It is not mani-

fested in the individual reactions of separate people but rather in the group psychology that affects the person.

Ethnic field. The principle of the field is realized universally in the life of the individual and of the species, in all its manifestations and in all its stages. But it is not hard to note that these manifestations themselves fall into two categories. One embraces the processes of the species' development, i.e. the transition of latent (potential) forms of its existence to developed (actual) ones. The other consists (a) in the behaviour of the elements of the organic whole (individual, colony, species), which ensures its existence, its wholeness (living unity), as such, and (b) in preservation of its form. In both these cases there is co-ordinated action of numerous elements of the whole, i.e. the principle of the field is manifested. But its object (individual) takes shape during development, i.e. it changes continuously both morphologically and physiologically. In accordance with that the field of development (the embryonic or morphological field) is also distinguished by dynamicity. Any field of a developing organ or young developing individual differs at any given moment from what it was the moment before. In opposition to that, the field regulates the behaviour of the elements of the organic formation, ensuring preservation of its wholeness, a relatively *static* behaviour that underlies the *type* of the given group. Clearly, however, the unity proper to the highest taxonomic groups is also extended to other aspects of their being. For us this unity is not only displayed through form but is also manifested through the behaviour of these groups in the evolutionary process in which they are involved, each as something whole and united. The existence of laws and patterns of the evolutionary process common not only to most organisms, but that are also characteristic for separate groups, testifies to this quite convincingly.

We can conclude, from the fact of the wholeness and the unity of groups, expressed in the unity of their structure and behaviour in the evolutionary process, that there are fields that govern and co-ordinate this process. One can call these fields phylogenetic. Since the type of a group is its fullest characteristic, we can see the essence of the evolutionary process in the evolution of types of groups. The concept of type, moreover, gets a dynamic meaning although it is still employed in a static sense.¹

The studies of history, ethnography, and even of psychology thus enabled us to return to nature study in the full sense of the word. Since people are part of Earth's biosphere they cannot avoid the effect of biochemical processes that affect their subconsciousness

or the sphere of the emotions. And emotions, no less than consciousness, push people to actions that are integrated into ethnogenic and relief-shaped processes. As a result, a generation with drive arises that loses the inertia of drive because of the resistance of the environment and passes into a relict state of ethno-relief equilibrium that may be disturbed by a new drive impulse, i.e. by a micro-mutation.

Supraindividual behaviour is most distinctly displayed in the collective actions of social animals. In human society the actions of the group are determined by an aim consciously set by the group or by its leader. Being guided by this aim and having definite plan to achieve it, people build towns, develop various branches of the economy, allocate the means obtained for living, and so on. Social insects also build a common dwelling for the whole colony, jointly gather and distribute food, bring up progeny, and so on.

The essence of the supraindividual behaviour of animals has not yet had adequate scientific treatment. It is often called instinctive. But what does that epithet explain? The theory of natural selection provides an answer to the origin of instincts and to the origin of all the properties in general of organisms. But (1) the explanation of these phenomena from the standpoint of this theory is as little convincing as its explanation of the whole process of evolution; and (2) knowledge of the origin of any phenomenon is not in itself sufficient for understanding its essence. And I, too, will not attempt to define precisely the nature of supraindividual behaviour and to answer what is the origin of instincts. It is possible, at the present time, that we not only do not have the factual data necessary for that, but even have not developed the concepts themselves with which it is necessary to operate in this field. But that will not prevent me from gathering facts relating to it, classifying them, noting the observed patterns, and trying to interpret them, starting from the general principles I have adopted.

In applying the principle of field to all the phenomena of an individual's and species' life, we concretely imagine the objects of the field's action. The reality of the individual is directly obvious to absolutely everybody. The reality of the species is not perceived so directly. But it is also unconsciously employed not just by biologists, since the concepts designating species, such as dog, crow, adder, bream, are common in everyday life.

A species manifested itself as reality through its unity. But for anyone who is concerned with systematics it is obvious that not only species but also ethnoi are realities—through historical unity, and community of historical fate or destiny.

The rhythms of ethnic fields. The conception of the role of an ethnic field is set out here in such detail because, when transferred to ethnology, it solves the most complicated problems.

We must agree on the meaning of the terms I am using. Even if they do not accord in details with those adopted in contiguous sciences, they explain to the reader ideas needed to understand what follows. Let us say that a field is a continuation of the body beyond its visible limits and consequently that the body is that part of the field in which the lines of force are so dense that they are perceived by our sense organs. It is now established that fields are in constant oscillatory motion from one frequency to another. These frequencies, i.e. 'vibrating stimuli', G.I. Akinshchikova writes,

have the peculiarity that they are transmitted unhindered from one medium to another and have a common character of dissemination in solid, liquid, and gaseous media. Vibrations in the air medium in the 16 to 20 000 Hz band are perceived by man as sound stimuli. There are no special receptor organs in the organism for perceiving vibration itself.²

She cites further data about the regime of normal vibrations for the internal organs and about neurological and physiological disturbances caused by the prolonged effect of vibrations on the organism. Among the vibrations affecting man are fluctuations of the activity of organs—diurnal, monthly, yearly, and long-term ones brought about by the influence of the sun, moon, changes in the geomagnetic field, and other effects of the external environment.³

That observation alone is sufficient to interpret all the assembled ethnological material. Only, it will be necessary to take the ethnic system as the standard of investigation, i.e. to pass from the organismal to the population level.

It is clear, starting from the data adduced, that the definite frequency of vibrations to which a system (in our case the ethnic system) has been able to adapt itself is the optimum one for it, on the one hand, and on the other hand is without perspective since there is nowhere and no reason to develop it.

But these rhythms are disturbed by impulses from time to time (in our case by impulses of drive), and the system, reconstructed again, strives for a blissful equilibrium, discarding elements that interfere with this process. At the level of an ethnos an odd combination is thus observed of rhythms and excesses, bliss and creation, the latter always being agonizing.

And yet, when speaking of outbursts of ethnogeneses in various regions, I have rejected the rhythmicity of these phenomena not

from general philosophical considerations but simply because the hypothesis of rhythmicity is contradicted by the observations. But fluctuations of an ethnic field (as I shall call it for convenience of exposition) with one frequency or another may be equated with a rhythm whose intensity changes during the course of ethnogenesis. Let me try to explain this by an example. A string (or tuning fork) begins to sound after being plucked (or struck), but its vibrations gradually weaken and the sound dies away. But if it is plucked again, with different force, it will sound again but louder or softer. And since there are no literal coincidences, and in nature not a single string but a huge orchestra and an acoustic hall, all ethnic fields are dissimilar, although governed by one law, namely, damping of the original impulse arising as a consequence of excess (micro-mutation). This explanation, even if one considers it unproven (inductively), is confirmed by its explaining all the known facts, which is recognized in the natural sciences as necessary and sufficient.

We perceive the ethnic field described (or a phenomenon equivalent to it) as ethnic proximity or nearness, or, on the contrary, as strangeness or foreignness. The principle, characteristic for all ethnoi — the opposing of itself to all others ('we' and 'not we') — that is manifested in direct sensation, can be interpreted simply from the point of view proposed. When the bearer of one rhythm meets the bearer of another, the new rhythm is perceived as something strange or alien, being out of tune with the rhythm that is organically inherent in the ethnos. The new rhythm may be liked, but the dissimilarity is registered by the individual's consciousness as a fact that has no explanation, but about which there is no doubt. And the rhythms of an ethnic field are manifested in stereotypes of behaviour, inimitable, as I have already said.

Obviously it is due to the existence of an ethnic field that ethnoi broken up by historical fate and subjected to the effect of different cultures do not fall to pieces. They can even regenerate if the causes disturbing the original rhythm of the ethnic field are removed.

From that, too, stems an explanation of the phenomenon of nostalgia. A person thrown into an environment of strangers, even though they are likeable people, feels a strange awkwardness and melancholy. But these feelings weaken when he finds fellow-countrymen, and disappear on returning home. Neither climatic conditions nor the presence of comforts has any significance in that connection.

The interpretation proposed removes doubts about the primacy of perception of ethnos. Since a biophysical phenomenon underlies ethnic community, it is stupid to consider it a derivative of social, ecological, linguistic, ideological, and other factors.

Now I can answer why newborn children are 'unnational', i.e. unethnic. The ethnic field, i.e. the ethnos as such, is not in the bodies of mother and child, but between them. The foetus is surrounded by a biofield, but the child, which establishes a link with its mother with its first cry and first swallow of milk, enters her ethnic field, i.e. a modified one that is then shaped by communion with the father, relatives, other children, and the whole people. But the field is weak at the beginning of life, and if the child is put into another ethnic environment, its field will be reconstructed, but not its temperament, capacities, and possibilities. This will be perceived as a change of ethnic membership, which happens relatively painlessly in childhood.

These considerations are strengthened by the data of psychology and pedagogy. A person's personality is moulded during the first three to five years of his life. According to Anton Makarenko, the Soviet educationalist, a child not correctly or properly brought up before five will require re-education. Another Soviet scholar, L.A. Orbeli, created 'an experimentally substantiated theory of the maturing of unconditioned reflexes even after a child's birth under the influence of the environment'.⁴ And alienation of a child under three from its mother, or rather from the person who is not so much flourishing as tender, attentive, and good, is very dangerous. Such separation often leads to a lowering of intellect, anomalies of social behaviour, heightened vulnerability, and aggressiveness. Clearly, it is not the gene apparatus that operates here but the biofield arising through communion – the highest form of mental activity. What I have said is true not only of the person but also of the system of a higher order, ethnoi.

The ethnic field and ethnogenesis. Above I explained only two aspects of the origin of ethnoi: the path of splitting and the path of merging. But the main point of all – the element of creative becoming rather than the rearrangement of what is formed – demands attention. I have noted that the commencement of ethnogenesis always coincides with a flaring of drive. To employ a metaphor, one can say that the reaction of synthesis only takes place at a high energy intensity, when the original components, the ethnic substrata, instantaneously lose their structure and are crystallized anew in hitherto unprecedented combinations.

I have established such periods of incandescence in the second century A.D., when the Byzantine entity was created, and in the eighth century, when the Muslim superethnos and the Tibetan and North Chinese ethnoi were simultaneously formed, in the ninth century with the formation of the European mediaeval nations, in the twelfth century with the birth of the Mongol and Jurchen ethnoi, and in the fourteenth century when the Great Russians appeared. Each emergence was seemingly preceded by an incubation period, but it is impossible to disclose and describe it by study of manifest history. But having established the pattern, I can rightly draw the logical conclusion that not only did the recorded historical ethnoi arise in that way, but also those ancient ones that are preserved as relicts or are only mentioned in ancient sources.

It should be remembered that the history of mankind is not evenly illuminated. But if the dynamic processes of the ethnogenesis of Palaeoasiatics, Patagonians, Melanesians, or the Khoi-khoi are not known to us, there are no grounds for considering that they did not have an acme phase. On the contrary, one can suppose, from the pattern I have established, that all ethnoi have had their heroic age and their flowering. But cruel time has blotted out the memory of those epochs, because the traditional historical method is powerless where tradition has been interrupted and broken off, and there is no deciphered writing. So we are limited by what it is possible, necessary, and for my purposes sufficient to do.

It is impossible to explain these phenomena, and a host of similar ones, from a premise of purposive behaviour and, consequently, of the existence of conscious choice of their fate. Here we come up against subconscious, elemental, spontaneous processes, that determine the behaviour of ethnic masses (statistically, of course). The rhythms of the 'fields' of the Chinese and nomad superethnoi differed so that friendly contact between them, even when dictated by political considerations, was never firm and long. And that was no accident.

When a rhythm is combined with others either harmony or discord can theoretically result. In the first case an ethnic merging occurs, in the second the rhythm of one or both fields is broken, which weakens the links and leads to a kind of annihilation.

But when there is an impulse or explosion of drive, the fields weakened by mutual rivalry lose their inherent rhythms and acquire a new one previously not theirs. The character of the new field depends on the force of the impulse (mutation), on the topographical conditions of the region, on the genetic code of the populations in the region, on the level of social development, on the stability of the

cultural traditions, and on the ethnic surroundings, either inert or sharply hostile. Many more determinant moments can be counted, but here I shall not briefly and hastily describe the impulses of drive and their consequences, because it is better to do that separately. Ethnogenesis is initially a strengthening, usually not very long, and then a gradual fading of the fluctuating motion, while ethnic contacts are interference of the vibrations of ethnic fields. And all ethnic history consists of take-offs and falls.

So, ethnogenesis is a natural process of the biosphere that is one of the components of ethnic history and proceeds together with three constantly operating factors: (1) the social, because people have always established a certain order of relationships in their collective; (2) the technical, because there is not, and has not been, a man without tools; (3) the geographical, because the means of existence are derived from surrounding nature; and since Earth's relief and topography are varied, the ecosystems, including people, are also diverse. These three parameters are sufficient to characterize any homeostatic ethnos, but the dynamics of ethnogenesis depends on a fourth, viz. the impulse of drive that sometimes arises on certain sectors of the earth's surface, and that generates not a single ethnos but a group of ethnoi, called a superethnos, i.e. a system in which the ethnoi are blocks, links, and subsystems.

The nature of a superethnos. But still, what determines the closeness of the members of a superethnic system to each other? Why are they capable of joining each other in creative bonds and cannot extend them beyond invisible limits into the area of another superethnos? As we have seen, the disparity between different superethnoi is so great that forced combining of them leads to demographic annihilation. In other words, despite the fact that the French knights had been inspired by the morals of the Arabs, by the erudition of the Greeks, by the courage of the Celts or the Lithuanians, and by the indomitable energy of Polovtsy, only ethnic ruins have arisen in the regions of contact. Figuratively speaking, if two massive solids create friction during contact, then dust will be scattered around that it is already impossible to return to the former crystalline state. The processes of destruction during contacts at superethnic level are irreversible.

But, for instance, there is also a diversity within a superethnos of (1) socio-economic structures, (2) races of first or second order, (3) languages, (4) customs and ceremonies; (5) religions. Let us dwell on all these partial attributes and characteristics consecutive-

ly, because a desire to take one external attribute or another for the deep essence of the phenomenon constantly arises.

The 'Christian world' at the end of the twelfth century employed many languages, French, Provençal, Castilian, Galician (the same as Portuguese), Basque, Breton, Tuscan, Neapolitan (there was no common Italian language), Saxon in Southern England and Norwegian in Northern England, various German dialects, Danish, Swedish, Polish, Czech, Hungarian, and Latin. Even in a big duchy or small kingdom there lived people with different mother tongues, but that did not prevent their communicating with one another. They learned the languages of their neighbours or employed Latin as the language of culture and religion.

In the 'Muslim world', too, Arabic, Persian, Turkish dialects, Syrian, and Kurdish were used. In Byzantium, even in Constantinople alone, they spoke Greek, Armenian, Slavonic, and Isaurian, and tried to write in Old Greek.⁵

The conclusion from that is unequivocal; as we have already seen, language is not an ethnic attribute and different languages consequently do not prevent mutual intercourse.

It is stupid to speak of a single economic structure of the superethnos of the twelfth century because most of the population lived a subsistence existence and contacts with neighbours were consequently not needed. The liveliest economic relations took place on the peripheries, precisely where mutual annihilation took place. Economic life was quite intensive in the towns, but an unfavourable growth of population was taking place in them. In congested and unhygienic conditions any infection mowed down the mediaeval burgher, but the town was again repopulated by arrivals from the countryside.

The races comprising superethnoi were very different and their combinations haphazard. In the Crusades blue-eyed blonds from Normandy and Saxony, green-eyed, auburn-haired men from Burgundy, lean black-eyed Provençals, long-nosed Italians (descendants of Syrians settled in Lombardy already under the Roman Empire), and Spaniards who could not always be distinguished from Arabs, equally participated.

Among the Muslim troops could be met, side by side, Turkomans and Sudanese Negroes, Hamites from the gorges of the Atlas, and Kurds from the slopes of Ararat. And the Arabs themselves, with splendid Bedouin genealogies, had as mothers or grandmothers Georgians, Greeks, Italians, Sogdians, Indians, Circassians, and Abyssinians. The racial composition only proved the

scale of the conquests and by no means the anthropological monolithic character of the superethnos.

There was also no similarity of cultures or 'information communications'. That was prevented in part by social barriers and the character of activity and also, to no little extent, by territorial isolation. A boy being trained as knight or esquire had to be exercised in fencing and riding from six years old, otherwise he would be killed in the first battle; one wanting to become a priest crammed Latin; an apprentice toiled over a fabric or a potter's wheel; the peasant boy herded cows and pruned vines. All were so occupied with their own affairs that they never chattered with one another. And their professional interests were so different that the need for 'information communications' was insignificant. And though Northumberland was raided by Scots, the inhabitants of Kent or, even more so, of Bordeaux did not care about that, even though the king of both was the same. And the Caliphate broke up into territorial emirates with ease, surprising the Arab themselves, although the link between the scholars of these sovereign states was not broken. But is it that theology and philosophy determine the commonality of an ethnos?

Besides it is only worth having a chat when different opinions are met. But then debate and bickerings arise. Such was the dispute of Bernard of Clairvaux and the Cluny monks against Abelard and the Paris students. But that did not undermine the wholeness of the Christian world.

Bernard was able to get the Catholic Church purged of illiterate priests and profligate bishops, and recruited two kings for the Crusade (the French king Louis VII and the German king Conrad III).

Abelard gave the Catholic Church a philosophical system, conceptualism, a Pope (Celestine II), a heresiarch (Arnold of Brescia), 19 cardinals, and 50 bishops. When excommunicated he retired to the monastery of his opponents, Cluny, where he died in 1142, reconciled with his persecutors. So what should be considered a 'node of communications'? A quarrel right to the stake, or silent, tacit agreement in the face of force? Or simply that information links are not a factor of ethnogenesis but an indicator of separate aspects.

Even more terrible was the discussion raised in North Africa in the same twelfth century by the Berber theologian Ibn Tumart against the Tuareg marabouts (hermits) about the 'unity of god'. These simple-hearted, ignorant people understood the likeness of God to man literally, in the sense that God had hands, a face, and so on. Ibn Tumart began to spread a version that quite suited him: 'His (Allah's) hand is a hand of some quality and his visage a visage

of some quality, for example hearing, sight', but what those hands were was in fact beyond human understanding.⁶ This would seem the right moment to establish communication information; but no, the champions of 'unity', the Almohads, slaughtered the 'polytheists', the Almoravids. The theological disagreement, hardly intelligible to anyone, can scarcely be considered the cause of the bloodshed. The Berbers were simply fighting the Tuaregs as, incidentally, it is accepted to consider.

The dispute about the divine attributes did not die out in Muslim theology for a thousand years, but it did not always lead to bloody consequences. On the contrary, regular, destructive wars arose and were waged under other slogans, for example in defence of the right of the descendants of Ali and Fatima to exercise the duties of the Caliph. It is consequently not a matter here of scholarly formulations but rather of something else that must be sought out.

But if we discard all the apparent causes of the monomorphism of superethnoi, then how can we explain the uniformity of the processes of ethnogenesis given the mutual dissimilarities of the systems? There must obviously be an invariant factor.

And there is. Let me describe it as follows: *the constellation of the energy relations of space and time that deform the ethnic substrata of a region*. Now let me explain what that means.

Imagine a wide tray with an uneven bottom, on one edge of which balls of different size and weight are strewn in a row. Let us touch this row with a narrow trowel. The balls touched will roll away with various speed and the rest will stay out. The rolling ones will gradually stop and assume a new imaginary shape. If we touch the balls in another place, the figure will be different because of the dissimilarity of the mass of the balls, their inertia, and the unevenness of the surface on which they are moving. But the new figure, too, will be the consequence of the shove.

Now let me translate the example into reality. The impulse of drive (micro-mutation) embraces a certain region and sets the ethnoi living there into motion, which dies out through loss of drive. When the movement begins new systems arise, in relation to which the old ethnoi play the role of substrata. All the ethnoi of the region affected by the impulse will change their relation with the terrain that feeds them and with their ethnic surroundings (neighbours), which will create an apparent diversity. But since they have all received one and the same impulse, they will display features of similarity (moving in one direction). That will unite them in a superethnos.

But can we compare a superethnos with a 'cultural sphere', or an ideological conception arising simultaneously with the impulse of drive? The idea suggests itself, but it is a temptation. Conceptions, philosophemes, aesthetic canons, ethical standards, and so on, are not phenomena of nature but the work of human minds. Like things made by human hands, these values (called 'spiritual') are either preserved or destroyed by remorseless time. And although they are spread by preachers and prophets far faster than the ethnoi that created them migrate, it is inevitable that they will be deformed on new soil. Two examples should suffice.

By the fifth century A.D. the Christian doctrine had spread from India to Ireland and from the Caucasus to Ethiopia inclusive. And everywhere it triumphed, but—the similarity achieved by heroic deeds and martyred preachers was limited by dogma, by the details of the divine service, and by migrant literary subjects like the legend of the Holy Grail. And this closeness was only a moment at the peak of drive; then everything happened haphazardly. Egypt, striving for spiritual independence, became Monophysite. Nestorians arrived in Mesopotamia under the protection of the Iranian Shah. Rome itself, heading the new superethnos, went its own way. And in Arabia Islam united in itself all the heresies persecuted in Byzantium and successfully synthesized them in a creed that became a symbol of the self-assertion of the Arabs. Cultural continuity there was, but the natural process flowed past it, washing away all the dams erected by people.

The fate of the Buddhist preaching was similar. This doctrine disappeared in its homeland, Bengal, but took on such different forms in Ceylon, Japan, China, Tibet, Siam, and Mongolia, that even the dogmatic basis was lost; only the terminology and name of the Buddha, Shakyamuni, was preserved. This man, incidentally, is also esteemed by Christians as St. Joasaph. Once again, as in the legend of the Holy Grail, cultural influence does not signify ethnic closeness.

The invariant of the superethnos thus lies in the sphere of geography and is determined by the combination of the drive impulse and the topographical peculiarities of the region. If the impulse affected two, three, or four regions separated by geographical barriers, then a corresponding number of superethnoi would develop, unconnected with one another. But these superethnoi, being of identical age, would develop synchronously in contrast to others appearing sooner or later. The collisions I have described, and ones like them, would occur.

The substrata for a new ethnos are also neighbouring ethnoi unaffected by the drive impulse. The ethnic surroundings always influence the character of ethnogenesis in any phase, with the exception of homeostasis. Each new ethnos is consequently a by-product as regards the preceding ethnoi on its territory and existing around it. On the other hand, the advent of a new ethnos inevitably lays its mark on neighbouring ethnoi and their development, even when this development is not broken by the activity of the newly appearing ethnos. The mechanism of ethnic development is complex, but its principle should be clear.

No, it is not only benefits and material goods that form people's stereotype of behaviour. Their love and hatred are largely connected with the subconscious elemental psyche, so that the words 'mine' and 'theirs' are not abstract concepts but a sensation of really existing ethnic fields and rhythms. That is why ethnoi and their aggregates—superethnoi—exist for a thousand years and do not fall apart, like a house of cards, from chance puffs of wind or upheavals. But when drive disappears, i.e. the force vibrating the ethnic field, the symphony dies away and the ethnos (or superethnos) collapses of its own weight.

Chimeras. It often happens that ethnoi grow into and through each other. Within a superethnos that does not provoke tragic consequences, but at superethnic level such metastases create chimeric compositions,⁷ that lead to death. The mechanism of the process looks as follows in outline.

The superethnic system arising in consequence of an impulse is closely linked with the nature of its region. Each of its constituent parts and subsystems—ethnoi and subethnoi—finds an ecological niche for itself. That gives them a possibility to reduce the struggle for existence to a minimum and get a chance to co-ordinate themselves, which in turn facilitates the moulding of social forms. Blood also flows in this situation, but not very abundantly, and it is possible to live. But if a new, foreign, ethnic entity invades this system, it is forced, not finding an ecological niche for itself, to live at the expense not of the territory but of its inhabitants. This is not simply neighbourhood, and not symbiosis, but a chimera, i.e. a combination in one entity of two different, incompatible systems. In zoology the combination of an animal and a helminth in the intestine is called a chimera construction. The animal can exist without the parasite, but the latter will perish without the host. But living in his body the parasite takes part in his life cycle, dictating a heightened need for food and altering the organism's biochemistry by its

own hormones, forcibly secreted into the blood or bile of the host or parasite carrier. That is the difference between the chimera and the symbiosis, whereby, for example, a hermit-crab carries an actinia on its shell, which defends it from its enemies by its stings. The actinia, moving on the crab, finds more food. With symbiosis at superethnic level both components feed on the gifts of nature and coexist, which does not exclude episodic conflicts. But all the horrors of superethnic clashes pale before the poison of a chimera at the level of a superethnos. But cross-breeding at the level of an ethnos or subethnos can engender either assimilation or a relict subethnos, which does not have lethal results.

Strong, drive-tense ethnic systems naturally do not tolerate outside elements in their environment. In Western Europe, therefore, chimeral constructions were seldom met before the twelfth century. But they appeared in the early thirteenth. As an example I would cite the state created by the Order of the Brothers of the Sword in the Baltic area, who carried on military operations with involvement of the warlike Livs, and who fed off the land by turning the Letts and Kurshi into serfs. Neither the Livs nor the Letts needed a bloody war with the people of Pskov and the Lithuanians, but they were in a system in which foreigners were their absolute masters, and there was nowhere to take shelter. So they had to lay down their lives for an alien cause.

Another example of a marginal (border) chimera is Bulgaria. Around A.D. 660 a horde of Bulgars, under the leadership of Asparukh, driven by the Khazars from their native Caucasian steppes, captured the valley of the Danube, populated by Slavs. The Bulgars were members of a Eurasian steppe superethnos, and their symbiosis with the Slavs over the course of nearly 200 years was a chimeral system. But the Bulgars were few in number; some of them dissolved into the Slavonic medium, and some settled in the Dobruja and Bessarabia, i.e. in the borderland. In 864 the Slavized Bulgarian king Boris was baptized, which marked the entry of his people into the superethnos I have conditionally called 'Byzantine'. But that only increased the number of elements in what was already a non-organic ethnosystem without that. Together with Greek Orthodoxy, Marcionitism, i.e. Bogomilism, arrived in Bulgaria from Asia Minor, by which the ideological confusion within the country was increased. War with Byzantium took on more and more cruel forms, until it was finished by the fall of the Bulgar Kingdom in 1018. Only in 1185 were the Bulgars liberated by Asen, the leader of the Wallachians, with the aid of Eurasian nomads, the

Polovtsy (who were in a symbiosis with the Bulgarians and Wallachians).

The institution of slavery is an element of partial ethnoparasitism. The enslaving of another person has as its necessary precondition a conviction that this person is different from the slaveowner. For the Egyptians and the Anglo-Saxon planters he/she was a Negro, for the Romans a barbarian, for the Jews the uncircumcised, for Muslims the *kafir* (infidel), and so on.

Interestingly, the institution of debt slavery has always met resistance, which has been led by legislators—in Athens by Solon, in ancient Israel by the author of *Deuteronomy*, and so on; while the enslaving of foreigners was considered natural even among the Tlinkites and Aleuts, hunters of marine animals. Slave labour was not employed in that hunting, so the female slaves were used for domestic service and the males were killed during the initiation ritual.

Let us recall that the Messenian helots were outraged not by their being robbed and killed but by its being done by the Dorian Spartans, who were also descendants of the Heraclidae. That circumstance shocked the Greeks, although they were all confirmed slave-traders.

If we change the initial point of reference, incidentally, it can be taken that the native population of a country is a component part of the terrain that the parasite ethnos exploits together with the animals, plants, and minerals. But that point of view can hardly be accepted by anyone except persons interested in this exploitation, and is constantly refuted moreover by history. Although slavery is constantly observed, the separate situations of ethnic parasitism have seldom been stable and lasting, but have often been reproduced anew.

Interethnic collisions cannot be classed as either biological or exclusively social categories, although the explanation I have suggested is a consequence of the described phenomenon of drive, as a modus of the biochemical energy of the living matter of the biosphere. Four variants of ethnic contacts at the level of a superethnos are possible, and it is clear that the determinant factor is the degree of drive of the contacting ethnoi. If we observe a combination of a persistent ethnos in which drive is not high with an ethnos with drive, assimilation or ousting of the weak ethnos is most probable. If two or more ethnoi of weak drive coexist, they will find a *modus vivendi*, and will not overpower each other. If they have strong but equal drive, cross-breeding will take place, the superimposition of rhythms deforming the stereotype of behaviour and making it favourable for the individual to the detriment of the col-

lective; such collectives are usually annihilated, because each individual is trying to live at the expense of the others. But if, when there is cross-breeding, an impulse of drive occurs, the heightened lability of the mutant populations will facilitate the rise of a new stereotype of behaviour, a new structure, and consequently new variants of socio-political institutions, in other words, of a new ethnos. That process can be compared with a chemical reaction that begins only in the presence of a catalyst and at quite a high temperature, and on the other hand with the creative process in psychology, which arises in the sphere of the emotions (subconscious).

It follows from this that ethnic cross-breeding (by no means racial) cannot be unequivocally appraised. In some circumstances of place and time it will kill the ethnic substrata, in others deform them, and in a third case transform them into a new ethnos. But it never happens without trace. That is why neglect of ethnology, be it on the scale of state or country, tribal union, or monogamous family, must be qualified as irresponsibility, criminal in regard to the offspring.

The Nature of Drive

Vernadsky's theory of the biosphere. When we pose the question of the energy essence of ethnogenesis, we must indicate what form of energy creates these processes. But for that it is necessary to renounce certain Philistine notions and replace them by scientific ones. Instead of the customary attitude to one's self as an independent organism, even though constantly interacting with other organisms,

we should denote living organisms as something whole and united, because they are all functions of the biosphere, ... and an immense geological force that determines it.

The organisms that populate Earth are not only an aggregate of individuals, but also 'living matter' that

is connected with the surrounding medium by the biogenic current of atoms: by its breathing, feeding, and multiplication.

According to Vernadsky the biosphere is not only a film of 'living matter' on the surface of the planet, but also all the products of its life activity over geological time, i.e. soils, sedimentary and metamorphosed rocks, and the free oxygen of the atmosphere. We walk upon the corpses of our ancestors, we breathe the life of those who

have been dead for ages, and we ourselves will go into that element so that our descendants will breathe us.

Everything living is a continuously changing aggregate of organisms linked together and governed by the evolutionary process during geological time. It is a dynamic equilibrium that tends over time to pass into a static equilibrium... The longer existence, if there are not phenomena of equal strength operating in the opposite direction, the closer the free energy will be to zero.

In order to understand this principle, we must take in yet another circumstance. The inert matter of the planet is governed by the law of increasing entropy. But living matter, on the contrary, has anti-entropic properties. And all this diversity of animate and inert matter is connected by a 'biogenic migration of atoms' or by the 'biochemical energy of the living matter of the biosphere'.

This form of energy is as real and active as the others studied by physicists. And like them it is governed by the law of the conservation of energy, i.e. can be expressed in calories or kilogram-metres. Our planet has been enriched by energy over geological time by absorbing (1) the radiant energy of the sun, (2) the atomic energy of radioactive decay, and (3) the cosmic energy of dispersed elements coming from our galaxy.¹⁰

And this form of energy compels organisms to multiply and proliferate as far as possible, just as a plate of duckweed, appearing in a pond in spring, has covered its whole surface by autumn, right up to the natural boundary, the banks. The same law of maximum spread operates for all living creatures of the biosphere, and that means people, too.

But the biosphere itself sets limits to the organisms that are its components. It is a mosaic; some species of animals or plants are limited by others, and a harmony of life arises, a dynamic equilibrium of large or small-scale biocoenoses. The climatic conditions on Earth are diverse. They are determined by zonality, remoteness from oceans, change in the characteristics of atmospheric pressure, and other causes. And consequently a need for adaptation arises for organisms, that already limits spread territorially. The neobiocoenoses, which can be interpreted as complex systems of animate and inanimate elements, are therefore stable. Constant processes are going on in them that ensure circulation of energy among the plants and animals of one habitat, i.e. conversion of the biocoenosis.

But people are also part of the biocoenosis. The forces of the ethnic community, which crowns the biocoenosis, are expended on overcoming constantly arising difficulties. In tranquil conditions the community lacks aggressiveness as regards neighbours and is inca-

pable of actively changing nature, which would promote an increase in the number of its members through intensive reproduction. So an ethnos is created as a system in which co-ordination of the individuals is a condition of existence. But drive itself pushes people to mutual extermination for the sake of predominance in the system, and then its tension falls until it reaches zero. After that the inertia of motion rooted in social institutions and traditions maintains existence of the system, but it is doomed and passes into homeostasis. All 'arrested' ethnoi were once, of course, developing, and those that are developing now will, if they do not disappear, become 'stable' one day.

The overwhelming majority of ethnoi, irrespective of their numbers, inhabit or inhabited definite territories, forming part of the biocoenosis of a given terrain and comprising together with it a kind of 'closed system'. Other ethnoi, developing and multiplying, spread beyond their biochore, but that spread finished by their being converted into ethnoi of the first type in the newly mastered, but stabilized region of adaptation. There is a complete analogy with the cosmic processes of thermodynamics:

In a closed system entropy is continually increasing. Consequently, an organism [or a system of organisms or ethnos. —L.G.] must systematically shed the accumulating entropy. Animate matter must therefore be constantly exchanged with the surrounding medium of energy and entropy. This exchange is regulated by controlling systems, which employ stocks of information for the purpose. It is quite improbable that the stocks of information arose spontaneously in the organism or system; consequently they are passed on by inheritance.¹¹

As I have shown above, the transmission of information by inheritance noted by physicists is called 'traditions' in the language of historians, and 'signal inheritance' in the language of biologists. Proceeding from everything noted above, ethnogenesis is an energy process, and drive is the effect of the form of energy that feeds ethnogenesis.

Mutations — drive impulses. Tranquil states of the geobiocoenoses, however, are not eternal. They are broken by spasms of strange activity lethal for its bearers. Grasshoppers, peacefully hopping about in a meadow, are suddenly transformed into a swarm of locusts that flies to meet its death, destroying everything in its path. Tropical ants quit their well-built nests and set out — destroying everything they encounter — only to perish on the way. Lemmings travel hundreds of miles to throw themselves into the waves of the ocean. Micro-organisms ... they also act the same, causing fatal epidemics.

How are these strange phenomena to be explained? Seemingly, we must turn again to Vernadsky's works on biogeochemistry.

The first biogeochemical principle reads:

The biogenic migration of atoms of chemical elements in the biosphere always tends to its maximum manifestation. All the living matter of the planet is a source of free energy and can do work [in the physical sense, of course; and by 'free energy', Vernadsky understood 'energy of living matter which is displayed in a direction opposite to entropy']. Because the development of free energy capable of doing work is created by the action of living matter.¹²

Consequently our planet received more energy from outer space than is needed to maintain equilibrium of the biosphere, which leads to excesses that give rise to phenomena among animals like those described above, and among people impulses of drive or explosions of ethnogenesis.

A necessary condition of the rise and flow of ethnogenesis down to its attenuation (after which the ethnos becomes a relict) is drive, i.e. a capacity for purposive supereffort. For the present I can explain it only by recourse to a hypothesis, i.e. an opinion that explains the noted facts but does not exclude the possibility of the appearance of other explanations. Drive is the organic capacity of an organism to absorb energy of the external medium and give it out in the form of work. In people this capacity fluctuates so strongly that its impulses sometimes sweep aside the instinct of self-preservation of both the individual and the species, because of which some people (in my terminology) have drive, perform acts (and cannot but do so) that lead to a change of their surroundings. This change equally affects the natural environment and the relations within human communities, i.e. ethnoi. Drive, consequently, has an energy nature that is refracted through mental features that stimulate a heightened activity of the bearers of this attribute that creates and destroys landscapes, peoples, and cultures.

My statement is by no means paradoxical. It is based on undisputed propositions of physiology. Sechenov long since defined the role of the environment as a physiological factor:

An organism without an environment that sustains its existence is impossible, so that a scientific definition of an organism must include the medium that influences it.¹³

And that includes the energy balance of the environment.

An organism gets the energy necessary for life activity, of course, not just from food, which maintains the temperature of the body

and regenerates and replaces dead and dying cells. But respiration, too, i.e. the oxidizing processes in the lungs, is no less important for the organism's life. The same has to be said of the interaction with other forms of energy: electrical (ionization of the integument), light, radiation, gravitational. All these affect the organism in different ways, but it is impossible to live without each of them. The mechanism of the conversion of energy of the environment into energy of the organism is therefore the subject of physiology. Something else is important for ethnology, namely, why are the fluctuations of activity so great in man, in contrast to animals?

One can suggest two equally valid hypotheses here. An individual with drive either absorbs more energy than normal, or (with equal absorption) directs it in a concentrated way (unconsciously of course) to some aim or other. In both cases the result will be identical—the individual's higher nervous activity will be more vigorous than is characteristic for the normal individual, or peculiar to the species, as such.

Thus, when social conditions determine the direction of a person's acts, their energy will depend on the state of the organism including its genetically conditioned attributes. So we come up against several problems of biology concerning the rise of a new attribute that suddenly appears, and not as a consequence of blending. This means that the explosion of drive (or the impulse) is accompanied with a mutagen element that generates various divergences from the optimum. But most physical and psychic monsters perish without consequences for the population. People with drive, who are also products of mutation, are in this sense an exception.

Roginsky and Levin, noting the low plasticity of racial attributes compared with non-racial ones, nevertheless point out the existence even of racial somatic changes that have arisen (cross-breeding apart) over the historical period.¹⁴ The change of characteristics comes about either through adaptation to new conditions or through mutation. In the latter case a useful characteristic is taken up, but a harmful one is rejected by natural selection. Drive is a non-racial and harmful attribute, if not deadly for both its carrier and his near ones. And here is why. When there are wars outside the country, people with drive go on distant campaigns, abandoning their families and farms, which fall into decay. So it was in Spain in the sixteenth century when the conquistadores were fighting in Anáhuac, Peru, and the Philippines, and regular troops in the Low Countries and France. The lack of skilled workers was so acute that even nails to build ships had to be bought in the Low Countries and

Germany. But only a century before Toledo blades had been considered the best in Europe.

But that is not the worst. With overheating by drive bloody internecine wars often arose whose victims were not only the rivals but also their families. Such were the Wars of the Roses in England, the Thirty Years' War in Germany, the Hundred Years' War in France, and the 'Three Kingdoms' in China. In these and similar wars, it was not those who fought who survived but those who artfully knew how to keep under cover. But the peculiarities of drive as an attribute are such that it lingers on in a population through the existence of 'illegitimate children', who inherit the biological but not the social features of their parents. The presence then of systems links, both rigid (social) and corpuscular (ethnic) increases the significance of an attribute for the system as a whole, be it a 'social organism' or a superethnos. But the degree of effect on the natural environment and ethnic surroundings not only depends on the level of technique and engineering but also on the level of drive of the ethnos as a whole, passing through one phase or another of ethnogenesis. What is more, certain scientists consider that mutations do not embrace the whole Oecumene but rather definite geographical regions.

There are grounds for suggesting that our ancestors had comparatively brownish skin, black hair, and brown eyes, which are also characteristic of the majority of races at the present time. The most depigmented racial types—blonds with light eyes—most likely developed through mutations that are concentrated mainly in Northern Europe on the coasts of the Baltic and North Seas.¹⁵

But does this mutation differ in any way from drive impulses, except that the latter arise rather more often?

One could get out of answering the question of the origin of mutations and reasons for mutagenesis, without much fuss. Biologists themselves do not answer it, justly citing as an excuse that the data they have obtained in experiments are artefacts, and that it is not correct to transfer patterns traced in the laboratory mechanically to what we see in nature. But my science—ethnology—has an absolute chronology at its disposal, and one can get rather useful results by means of this instrument.

Since I have equated the impulse of drive with a micro-mutation, we can enrich biology with data that biologists can interpret from their own standpoints, by studying the areas and dates of the impulses historically. Biological micro-mutations and, in the language of ethnology, the formation of superethnoi connected with drive usually embraces an area of the earth's surface stretching north and

south, or east and west, but sometimes the axis of the upsurge of drive is at an angle to the meridian.¹⁶ But whatever topographical zones there would be in these areas (mountains, deserts, bays, gulfs, etc.), the territory remains monolithic. The relief and the ethnic substrata only determine that on the territory embraced by the outburst of drive two, three, or four different superethnoi may arise in one and the same epoch. Transference of the attribute of drive through hybridization is obviously ruled out since that would certainly be reflected in the anthropological type of the metises. Land barriers also exclude cultural exchange and borrowing through imitation. Both would easily be traceable in works of art and material culture. Obviously, we are faced with a special phenomenon that calls for special description. Remember, a new superethnos or ethnos arises from an inevitable mixing of several ethnic substrata; but does this not resemble a simple storage battery in which there must be zinc, copper, and acid in order to get a current? That of course is a metaphor, but it illustrates an energy process that is constantly fading because of the resistance of the medium or environment. But if that is so, the impulse must also be an energy one, and since it is not apparently linked with terrestrial natural and social conditions, its origin may be extraplanetary.¹⁷

When one examines the area of an explosion of drive one gets an impression that the globe is cut into strips by a light from one side of it, and that the curvature of the planet has limited spread of the impulse. On the spot of the 'impact' varied mutants appear, most of which are not viable and which disappear in the first generation. People with drive are also abnormal, but the peculiarity of this attribute is such that before it is eliminated by natural selection, it leaves a trace in ethnic history, and to some extent in the history of art and literature (since the two are linked with the ethnos).

One could put forward other hypotheses as well of the origin of drive explosions or impulses: chance fluctuations, the presence of a stray gene, reaction to an exogenic stimulus. But they all come up against facts that contradict them. It is not excluded that the hypothesis I have set out here will not be confirmed, but that in no way affects application of the conception of the energy character of ethnogenesis to vital problems of geography and history.

Commissures of terrains. Let me come back to the problem of the relation of an ethnos and the terrain and answer why a combination of two or more reliefs, two or more ethnoi, and two or more 'social organisms', are necessary for the rise of a new ethnos. What is that? A series of accidents? Or a regularity?

Analysis of the interaction of an ethnos (as an independent phenomenon) with the terrain has shown that they are both linked by a reverse dependence, but the ethnos is not a constantly acting landscape-forming factor and the terrain cannot be the cause of ethnogenesis without an outside influence. The relation then of the ethnic and social patterns even rules out feedback, because Earth's ethnosphere is only the background for social development and not a factor of it.

In contrast to social laws, the decisive element for ethnogenesis is the territorial one. The formation of peoples is polycentric; outbursts of ethnogenesis are not associated with the peoples' culture and life, whether developing or stagnant, and not with their racial composition, or the level of their economy and technique, but are connected with special conditions of space and time. The terrain does not of itself generate new ethnoi, because they sometimes do not arise in some spot or other, even favourable, for whole millennia. The regions of ethnogenesis are changing all the time. The process we are concerned with begins now here, now there, which means that terrestrial forces do not cause it (which I have already taken into account). We must consequently look for the source of ethnogenesis in the environment of Earth, and again turn to biogeochemistry.

Proceeding from my thesis of the nature of an ethnos as a system generated by an outburst of drive, I have the right to define an ethnos as an energy phenomenon. Since an incipient energy process always overcomes the inertia of the preceding processes, it is natural that the lower the inertia the more easily it is disturbed by an unexpected shock.

A monotonous terrain with a homogeneous ethnic population and traditions uniting the people embodied in forms of political institutions, is a massif that will react very little to a relatively weak shock. But with a combination of varied terrains a combination of different modes of economy is inevitable. Some people will catch fish at sea, others pasture cattle in the mountains, a third group will sow corn in fields, and a fourth will cultivate vineyards in the valleys. Even if they all have common ancestors, the need to adapt themselves to different environmental conditions will make them rather dissimilar to each other over several generations. And this dissimilarity will increase until the systems links between them weaken, as a result of a gradual movement of society that will take place simultaneously through the development of the relations of production, which will, for its part, inevitably entail a restructuring and reorganization of the obsolescent social system. If, as a conse-

quence of the historical vicissitudes of the ethnos, two or three states or tribal unions arose, the stability of the system would be even less. The social and ethnic lines of development are thus interwoven into a system.

These systems are very productive in the economic sense thanks to division of labour and specialization. They have quite a good resistivity to the ethnic environment, i.e. to neighbours that are trying to conquer them, because the propensity to mutual exchange of products also extends to mutual help, but the internal drive impulse, as a rule, overthrows them with astonishing ease. The take-off moments of ethnogenesis are equally favoured by a combination of different cultural levels, types of economy, and dissimilar traditions. A common element here is the principle of variety and diversity, which can be interpreted in the aspect interesting me. Imagine the ethnosphere as a combination of several broad plates touching each other. This construction is struck by a downward blow. Naturally, it is not the plates that will be broken first, but the contacts between them, and then a chain reaction will start that deforms the plates themselves. As an example, Byzantium and Iran were stable systems in the sixth and seventh centuries, but the border region between them, populated by Arabs, experienced their influence. A drive impulse moved the Arabs so that a group (consortium) of followers of Muhammed was singled out. After four generations first an ethnos, then a superethnos was formed from the Ebro to the Pamirs. Since the individuals of the new mood interacted with one another, there immediately arose an entity that was emotionally, psychologically, and behaviourally single-minded, which evidently had a physical sense. Here we most likely have a case of a kind of single rhythm. It was that which was perceived by observers as something new and unaccustomed, and not their own. Conquest is not the only form of ethnic spread and drawing of other peoples into a system. There is transplantation of a culture in the form of the preaching of religion, and as an introduction of everyday objects or objets d'art that alter the system which is the object. The Christianizing of the Eastern Slavs in 988 led to an extension of the ethno-cultural area of Byzantium. The sale of opium and paraffin lamps in China made her dependent on Great Britain and America, undermined daily life, and then public authority, and finally the superethnic system of the Xing Empire, which entailed not only political and social changes but also ethnic one, as for example the assimilation of the Manchus by the Chinese.

An impulse of drive is thus necessary for the commencement of ethnogenesis, but the diversity observed in reality is determined by both the relief and terrain, climatic features, ethnic neighbourhood and cultural traditions, and the strength of the shock itself, i.e. the impulse. That is why all ethnoi are original and inimitable, although the processes of ethnogenesis are similar in character and direction.

Thoughts about the noosphere. As I have already remarked several times, people's conscious, deliberate activity plays no less a role in historical processes than their emotional activity, but their character is different in principle. A disinterested striving for truth gives rise to scientific discoveries that determine the possibility of technical improvements, and so create the prerequisites for growth of the productive forces. A passion for beauty shapes the mind both of the artist and of the viewer. A thirst for justice stimulates social reorganization. In short, 'human reason, which is not a form of energy but produces activity as if responding to it',¹⁸ becomes an impulse of the phenomenon called progress and is consequently associated with the social form of the motion of matter. The link between these two forms of the motion of matter, which are both present in every historical event, great or small, is obvious. According to Vernadsky, 'the evolution of species, which leads to the creation of forms of life stable in the biosphere'¹⁹ (the Second Biochemical Principle), and consequently directional (progressive) development, is a planetary, global phenomenon.

But the fruits of human hands have a primordial difference from the creations of nature. They drop out of the conversion of biocoenoses in which there is a constant exchange of matter and energy that maintains the biocoenoses as systemic entities. Human creativity wrests particles of matter from nature and shackles form onto them. Stones are transformed into pyramids or a Parthenon, wool into jackets, steel into sabres and tanks. And these objects lack self-development; they can only be destroyed. Kalesnik drew attention to this difference in principle between nature and technique in the broad sense, when he also pointed out that not all man's creations possess these properties. A field of wheat, an irrigation ditch, a herd of cows, or a domestic cat remains part of the geographical environment in spite of man's influence. The anthroposphere thus occupies an intermediate place between the dead technosphere and living nature. But if so, they are in opposition. And this is a convenient place to introduce Yu.K. Efremov's

amendment to evaluation of the 'noosphere', which he has called the 'sociosphere'. Is 'the sphere of the mind' really reasonable? For it tries to slip into itself the living processes that enrich our planet with stocks of the condensed energy concealed in soils and sedimentary rocks, in coal and oil. The past life of micro-organisms gave us the oxygen of the atmosphere and the ozone layer that saves us from lethal cosmic radiation. The plants that cover the land are a factory of photosynthesis processing light into animate matter. Animals, our lesser brethren, regulate biocoenoses and impart order to them.

But what has the noosphere given us, even if it really exists? From the Palaeolithic, numerous flint chippings and accidentally dropped scrapers and choppers; from the Neolithic—kitchen middens at places of settlement. Antiquity gave us the ruins of towns, and the Middle Ages the ruins of castles. Even when ancient structures have survived to our day, like the pyramids or the Acropolis, they are always inert structures going relatively slowly to wrack and ruin. And you will hardly find a person in our time who would prefer to see heaps of refuse and concreted squares in place of forests and steppes. But technique and its products are the materialization of reason.

In short, whatever our attitude to the idea of the existence of a noosphere, the polarization of technique and life is indisputable. And here we are faced with the task of defining the relation of the drive that initiates ethnoi and the sphere of consciousness that generates culture and technique.

Drive and the Sphere of Consciousness

The frame of reference. If we take as our standard the impulse of the innate instinct of self-preservation (1), individual and species, then the impulse of drive (D) will have an opposite sign. The value of D may correspondingly be either greater, or less than, or equal to the impulse of the instinct of self-preservation. Consequently, a classification of individuals into those with drive ($D > 1$), harmonious ($D = 1$), and of sub-drive ($D < 1$) is legitimate. The ratio of these groups determines the level of drive in the system, in my case in an ethnos. After a drive impulse tension rises rapidly but 'overheating' sets in, after which there is a slow, smooth decline, often with delays. If we were to plot a curve it would record the inertial process. All the values would be positive; and the limit, in practice unattainable, would be zero.

The overwhelming number of acts performed by people are undoubtedly dictated by the instinct of self-preservation, either personal or species (the latter being manifested in a propensity to multiply and raise offspring).

But drive has an opposite vector, because it forces people to sacrifice themselves and their posterity, which are either never born or are held in complete contempt for the sake of illusory aspirations (ambition, vanity, pride, greed, jealousy, and other passions). We can consequently treat drive as an anti-instinct or instinct with a reverse sign. And since there is no *ethnos*, and cannot be, that is not associated with a primary outburst of drive, it is a commensurate value for all *ethnoi*.

We can consequently classify all *ethnoi* by the degree of the growth and decline of the drive of the ethnic field. The existence of fluctuations rather complicates this principle, but not too much, because the scheme — of a rapid upsurge of drive and its slow depletion — is real for all the *ethnoi* known to me. It cannot be accidental. I can therefore consider the take-off moment of ethnogenesis as the similarity of the impulse that communicates to the ethnic system the inertia lost through the resistance of the environment.

Both instinctive and drive impulses lie in the emotional sphere. But psychic activity also embraces consciousness, which means that we must look for a division of impulses in consciousness such as could be compared with that described above. In other words, they must be divided into a class of impulses directed to maintaining life, and another class directed to sacrificing life to an illusion. For convenience of reference I designate impulses of life assertion by a plus sign, and impulses of sacrifice, naturally, by a minus sign. These parameters can then be developed in a flat projection similar to the usual system of Cartesian co-ordinates, noting that positive does not mean 'good' or 'useful' and negative 'bad'; in physics cations and anions, and in chemistry acids and alkalis, do not have qualitative values.

One must note, in general, that only in the social form of the motion of matter is there sense in opposing progress to stagnation and regression. The search for a meaningful aim in the discrete processes of nature is an irrelevant teleology. Just as mountain-building is in no way 'better' than denudation in geology, and conception and birth are acts of the life of an organism in the same way as death is, so there is no criterion of good in ethnic processes. But this does not mean that there are no system, movement, and even development in ethnogenesis, whereas there is no 'ahead' and

'back'. There is only rhythm in any oscillating motion, and greater or less tension. So, let us agree on terms.

Only unrestrained egoism, requiring reason and will in order to realize itself as an aim, will be a positive impulse. By reason we agree to understand a capacity to choose a reaction in conditions permitting it, and by will a capacity to act in accordance with the choice made. All tactile and reflex activities of the individual are consequently excluded from this division, and equally acts performed under the compulsion of other people or quite weighty circumstances. But inner pressure—an imperative of either instinct or drive—also determines behaviour. And that means it has to be excluded, along with the pressure of the ethnic field and traditions. For 'free' and 'egoistic' impulses there remains a not very big but strictly demarcated field, in which a person bears moral and juridical responsibility for his actions.

Here again we come up against the impossibility of providing a definition unnecessary in practice. The collective experience of the human race clearly distinguishes forced acts from crimes. Killing in self-defence is distinguished from killing in order to rob or for the sake of revenge, seduction from rape, and so on. In the middle of the nineteenth century attempts were made to identify such acts, but that was groundless arguing. It is obvious in our times that however reasonable a person's concern for himself is, it does not give him grounds for deliberately infringing the rights of neighbours or of the group.

A group of impulses with an opposite vector opposes 'rational egoism'. It is well known to everyone, like drive, incidentally, but is also never singled out in a single class. In all people there is a strange inclination to truth (a tendency to form an adequate notion of an object), to beauty (what pleases without preconception), and to justice (corresponding to morals and ethics). This bent or inclination varies strongly in the force of the impulse, and is always limited by a constantly operating 'rational egoism', but in some cases it proves more powerful and leads the individual to death no less unswervingly than drive. It is an analogue as it were of drive in the realm of the conscious, and consequently has the same sign. I shall call it attraction.

The nature of attraction is not clear, any more, incidentally, than that of consciousness, but its relation to instinctive impulses of self-preservation, and to drive, are such as, say, the relation in a boat between the prime mover (oar or motor) and the helm. 'Rational egoism'—the antipode of attraction—is equally related to them.

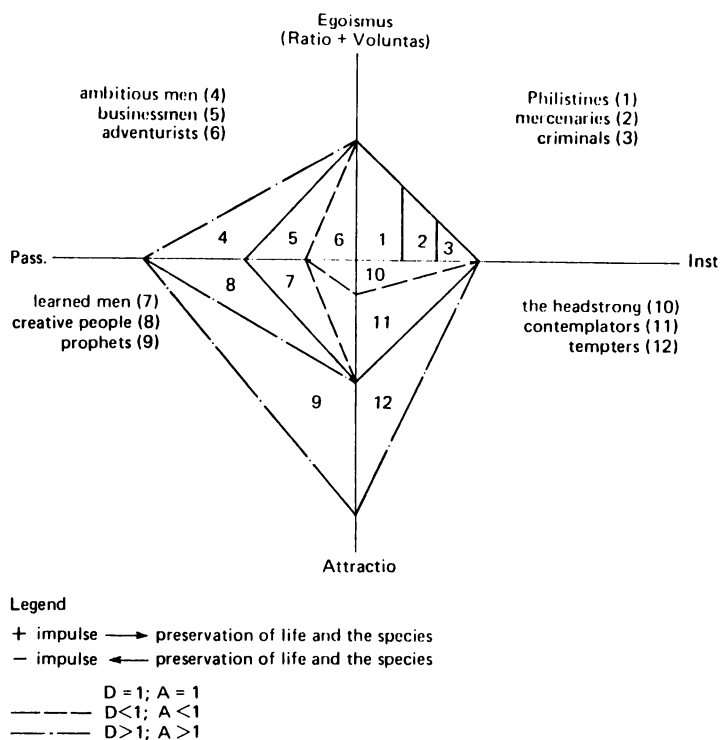


Fig. 2

We can therefore plot the classes of impulses I have singled out as follows: subconsciousness, along the abscissa, and consciousness along the ordinate (Fig. 2).

But is such a complicated construction needed? And for what?

The relations of classes of impulses. There is no doubt about the biological nature of instinctive impulses. Both the desire to live long, and the longing to re-create oneself through offspring are biological attributes inherent in man as a species. But if that is so, the attribute's value, in the sense of its effect on the actions of the individual, must be stable, which means that, in each separate case,

man's longing to live is one and the same for all people living, who have lived, and who will live. At first glance that contradicts observed reality.

In fact there are plenty of people who value life so little that they voluntarily go to war; there are cases of suicide; parents often abandon children to the will of fate, and sometimes kill them. And that is alongside of deserters who dodge war, and those who suffer insults in order to save their life, and parents who give their lives for children, who are often unworthy and base. A vast spread of data! There would appear to be no system in the total of observed phenomena.

But let me recall here the opinion of the ancients about heavy bodies' falling faster than light ones. Only Galileo's experiment showed that the force of gravity acts equally on a bit of fluff and a cannon-ball, and the difference in rate of fall depends on an extraneous phenomenon, viz., the resistance of the atmosphere. The same happens in the problem engaging my attention.

In Fig. 2 the reverse impulse of drive lies on the same line. In algebraic summation it cancels out one part or another of the positive abscissa, and sometimes even all of it. The magnitude of the impulse D (drive) can be less than the impulse of instinct (the value of which it is convenient to take as unity), equal to it, or greater. Only in the last case do we call a person one with drive. With equality of the magnitudes, we have the ideally harmonious individual, like Prince Andrei Bolkonsky in Tolstoy's *War and Peace*; D rather less than unity is a Chekhovian intellectual; less still, simply a Philistine; and after him come the sub-drive tramps and vagrants from Gorky's early stories. Even lower we have cretins and degenerates.

But if the tension of drive is higher than that of instinct? Then the point that designates the individual's psychological status is displaced along the negative branch of the abscissa. There will be found the conquistadores and explorers, the poets and heresiarchs, and finally resourceful figures like Caesar and Napoleon. As a rule there are not very many of them, but their energy enables them to develop furious activity fixed and recorded wherever there is history. Comparative study of a small spread of events gives a first approximation of the definition of the magnitude of drive.

We observe the same sequence in the conscious impulses plotted along the ordinate. 'Rational egoism', i.e. the principle 'all for me', has a stable value at the limit. But it is moderated by attraction, which is either less than unity (for which I take the impulse of egoism or self-love), or equal to it, or greater. In the last

case we observe altruistic scientists and scholars, artists who throw up careers for the sake of art, the law-lovers who defend justice at the risk of their lives; in short, the type of Don Quixote in varied concentrations. The real behaviour of the individual we have the chance to observe is therefore an amalgam of two constant positive values and two variable negative ones. Consequently, only the latter determine the diversity of the behaviour categories observed in reality.

Properly speaking, all the impulses described above come under the definition of 'dominant' accepted in psychology. But it is necessary for my purposes to distinguish several definite dominants, and to pay no attention to the others, for example libido, as without significance for my theme. And it is even more important to establish the vectorial character of the selected dominants.

Application of the conception to ethnogenesis. The proposed point of view and frame of reference yield little for study of the psychology of the separate individual. Since the level of drive is an innate attribute over a person's whole life, the ratio of the values does not change. As for attraction, it changes under the impact of other people (teachers, friends, pupils), and that means that its variability is a property of the group and not of the individual. But when we are studying ethnogenesis, the principles of the proposed conception are always convenient, though the results can only be expressed in conventional, arbitrary ratios at the present level of knowledge and possibilities. It is still beyond our possibilities to obtain numerical data. But even what we have is still very useful for analysis.

We are well aware that all ethnoi pass through several phases of evolution that are uniform in the ideal or the scheme. The many deviations from the scheme, for example breaks of development, or shifts through outside interference, are easily allowed for and excluded from examination of the main pattern. It is just as easy to allow for them later during synthesis, i.e. in restoring the real history of a people. Let us eliminate chance from the pattern, which will look as follows from the angle of ethnology.

Let us take a group of different people as an example, and assume that we know the drive and attraction of each of them. Then there will no longer be a place for each on the axes of the co-ordinate, but on the plane between the axes. A category of people of the same temperament, determined solely by psychophysiological constitution, will be located in each quarter (see Fig. 2).

As will be seen from the drawing, the moral criterion does not attract attention, which enables us to treat the proposed classification as a natural-historical one providing a chance of examining the object objectively.

Suppose, too, that we have the data for plotting not just one moment on the system of co-ordinates but, say, ten at intervals of a hundred years. We thus obtain an expression of the variations of drive for the average period of the life of an ethnos. If we had a chance to express the value of D in figures, it would be simple to draw a curve of drive, and then find an equation corresponding to this curve. But we still have to limit ourselves to description.

That, however, also yields a lot for research. The saturation of a time interval with events is always comparable with that of another interval. These ratios are graphically expressed in detailed synchronistic tables, but they have not drawn the attention of historians because a phenomenon reflected in them, viz., fluctuations of drive, has not been taken into account. These tables have now acquired sense and meaning.

The place of drive in historical synthesis. It may seem that I have paid so much attention here to the description of drive because I attach the significance of the decisive factor to it. But that is not so. The theory of drive is given attention only so as to fill the vacuum formed by one-sided study of ethnogenesis, not to replace the theory of the primacy of social development in history, but to supplement it with indisputable data of the natural sciences; that is the aim of the theoretical addition needed for historical synthesis.

There is now sense in showing the relation between the four main groups of causal effects on ethnic processes. Two of them are of the highest rank, and two subordinate. In general form this will be a scheme, but it is precisely one needed so as to separate the chance from the law-governed, which are constantly associated in any historical and geographical discipline, because the one and the other study variables that change in time and affect ethnogenesis.

The first and main factor of social development is growth of the productive forces, as a consequence of which there is a change in the relations of production and so in the organization of society. This global process is generalized in a thorough, comprehensive way by the Marxian theory of historical materialism.

A second factor, which determines not the impulse but the course of the processes of ethnogenesis, is the geographical environment, ignoring of whose role Kalesnik has rightly called 'geo-

graphical nihilism'.²⁰ But exaggeration of the significance of the geographical environment, i.e. 'geographical determinism', also does not yield positive results. Plekhanov wittily showed that in his polemic with Labriola, when he remarked that

the Italians of today [at the end of the nineteenth century. — L.G.] live among the same natural surroundings as the ancient Romans did, yet how little does the 'temperament' of the present-day losers to Menelik resemble that of the stern conquerors of Carthage.²¹

It could be objected that the anthropogenic effect over 2 300 years had altered the topography of Italy, yet nevertheless it is obvious that it was not the replacement of the beech forests by lemon groves and thickets of maquis that led the Italian army to defeat at Aduwa.

But these powerful factors, in combination, determine only the 'overall *trend*' of socio-historical processes and not 'the *individual features of events and some of their particular consequences*'.²² But it is just such trifles that often lead to the creation or the break-up of a consortium, and sometimes to the preservation or dispersal of a subethnos, and are rarely, yet all the same, reflected in the fates of ethnoi, and in exceptional cases may even affect the forming of a superethnos. Quite abundant examples of these historical zigzags that compensate each other in given segments of history were given by Plekhanov in the work cited, though exclusively from the history of Europe. The reader will find similar data from the history of the Far East in my *Steppe Trilogy*.²³

One can thus single out a factor of lower rank—the logic of events—in which allowance is made for short chains of causal connections, in themselves law-governed, but which are chance affairs for a process of higher rank. These short regularities, in turn, that are constantly broken in the course of history, depend on accidents of a second degree, and so on.²⁴

These variations can be ignored when global processes are being surveyed, for example, the succession of formations, but it is necessary to allow for them in ethnogenesis. And it is here that the role of outbursts and fluctuations of drive comes out; they are related to the forming of the biosphere like the logic of events to the social form of the motion of matter. In other words, the role of drive in ethnogenesis is less than 25 per cent, but ignoring of this amount yields an appreciable error that confuses the results. And a miss is as good as a mile. Let me therefore continue the description of the phenomenon I have noted.

So far I have only described drive as a biologically inherited attribute, employing examples from the history of different periods. We have thus seen that history, as a science, provides a chance of tracing certain laws of the phenomena of nature. Consequently, history can be useful not only in itself, but also as an auxiliary discipline of natural science. So far, though, it has not been employed for that purpose.

Generalization. All the observations and generalizations of them adduced above help draw attention to the non-coincidence of the social and ethnic rhythms of development. The former is spontaneous continuous movement along a spiral, the second is discontinuous, with constant flashes and outbursts whose inertia is dampened by the resistance of the environment. Chronological social shifts (changes of formation) and ethnogenetic processes do not coincide in any way. Sometimes an ethnos, for example the Russian, experiences two or three formations, and sometimes it is created and disintegrates within one, like the Parthians, for example. Mankind's social development is progressive, but ethnoi are doomed to disappear.

One can now draw a conclusion. Ethnogenesis is an inertial process in which the initial charge of energy (the biochemical, described by Vernadsky) is expended through the resistance of the environment, which leads either to elimination or to ethnic equilibrium with the terrain and the human surroundings, i.e. conversion into a relict, viz., a vestigial (persistent) state, lacking creativity. It is through high intensity of drive that the interaction between the social and natural forms of the motion of matter takes place, just as certain chemical reactions only take place at a higher temperature and in the presence of a catalyst. Ethnoi are created and maintained by impulses of drive (the biochemical energy of living matter refracted by man's psycho-nervous organization), and disappear as soon as the tension of drive slackens.

In conclusion I must clarify how far the conception of ethnogenesis corresponds to the theory of dialectical and historical materialism. It fully corresponds to it. The development of social forms is spontaneous; the change of socio-economic formations is a global phenomenon in spite of the unevenness of development in different regions; the motion of the social form of matter is forward and progressive; its direction is a spiral. Consequently it is a philosophical theory of the general laws of development, and of course a whole order of magnitude higher than the anthroposphere taken as a whole, and two orders higher than the ethnosphere, i.e. the mosaic

of ethnoi in time and space. In other words ethnology is a partial case of the application of dialectical materialism, allowing for the specific nature of the theme and aspect.

All natural laws are stochastic, of course, and consequently are governed by the law of large numbers, which means that the higher the order, the steadier the action of the law on the object; and the lower the order, the more the role of chance increases and so the degree of freedom.

In the first case the limit is the Galaxy, in the second the atom, because supergalactic and subatomic phenomena are investigated by different means and are otherwise perceived by our consciousness. But between them lies a gradation of the orders of phenomena. And each order requires attention and an approach to itself.

Ethnology is somewhere around the mean. The type of motion in ethnoi is fluctuation; development is inertial and discrete; stability is ensured by systemic links and ties, and uniqueness and creation by the effect of the biochemical energy of animate matter refracted by the psyche, i.e. by drive.

Such, in my opinion, is the definition of the concept 'ethnos'. It is an elementary concept, not reducible either to social or to biological categories. That conclusion is an empirical generalization of historical and geographical facts.

The Mode of Scientific Search

From historical geography to ethnic psychology. Just as it is bad for a person to live outside an ethnos, it is bad for him to live outside the natural conditions he is accustomed to, made fit for his needs by his ancestors. I have described the mechanism of the rise of anthropogenic landscapes, and its connection with the phases of ethnogenesis. This quite rigid link also depends on the collective tuning of the ethnic system that forms the ethnocoenosis, development of which is associated, as we now know, with the level of drive and also with the character of the adaptation to the terrain, and the presence of some ethnic dominant or other. With such an approach to the subject of study, the Eurocentric idea of the superiority of technical civilization over the development of other types, it goes without saying, loses its validity. In fact, why consider the agricultural culture of India or the hunting culture of the Eskimos of Canada less perfected than the mode of life of the inhabitants of urbanistic agglomerations? Is it really only because the latter are customary for the majority of my readers?

But if we are to break with Philistine subjectivism, we shall need a reliable criterion for comparing ethnoi and superethnic cultures, because they cannot in fact be considered wholly equivalent to one another. For that purpose we must turn again to an examination of the features of ethnogenetic processes and, without limiting ourselves to a simple description, provide an interpretation on the basis of the drive I have discovered, in which the phase of ethnogenesis and change in the state of the anthropogenic landscape will be correctives for each other.

That the difference of ethno-psychological stereotypes is determined by the climate, relief, flora and fauna of the places of ethnic development was known long before Montesquieu. These ideas already figured among the Arab geographers of the tenth to fourteenth centuries, being the foundation of geographical determinism; their incorrectness then consisted not in their falsity but in the inadequacy of the explanation of the observed phenomena. The geographers of that trend did not allow for the main point, viz., the dynamics of ethno-psychological mentalities and dispositions, which changed uniformly and in a regular way over centuries. Let me explain this by graphic examples from Russian literature and history.

The Russian, or rather Great Russian, ethnos has existed a long time. Even if we do not accept the mythical Rurik and the no less mythical Oleg and Igor, the direct ancestors of the Russians were in any case already recorded after the Tatar invasion, somewhere at the beginning of the fourteenth century. They were the same Russians, but did they really behave as modern Russians do? Well, not quite the same. When Pushkin, for example, was insulted, it seemed the right thing to fight a duel. But no Russian today fights a duel when he is slandered or nasty things are said about his wife. Are we a different ethnos than Pushkin's contemporaries because we behave differently? Perhaps that should be answered in the affirmative—but perhaps not? Because intuition says that Pushkin was the same kind of Russian person as we are. The change in the stereotypes of behaviour seems quite natural to us. Because three hundred years before Pushkin, in the reign of Ivan the Terrible, when there was no duelling, and duels were not known in general, how did the merchant Kalashnikov, for example, behave when his wife was insulted by the Oprichnik Kiribeevich? Lermontov described it quite accurately. Kalashnikov seized the right moment, and in an honest fist fight delivered a foul blow to the temple. He killed the offender, sacrificing his own life to do so. From the point of view of people of the time of Pushkin and Lermontov that was a

gross baseness. They did not act so! If you got into an honest fight, you should fight honestly. But from the point of view of Kalashnikov's contemporaries, he acted absolutely correctly, and even Ivan the Terrible himself said:

As for thee, brave heart, on the block shalt thou
Thy wild head lay down by the Tsar's command;
I will have the blade made keen and sharp,
I will have the headsman wear fine, rich dress,
The great bell for thee will I bid them ring
That all Moscow-town, all the folk might know
That thy Tsar to thee of his goodwill gave...

But two hundred years before that no one would have tried in general to kill his insulter, especially if the latter was of high social standing — a duke or an influential boyar. An insulted man-at-arms or member of the bodyguard, a priest or a free peasant simply went off to another duchy. If they treated him badly in Moscow, he went to Tver. And if they treated him badly in Tver, he went to Suzdal; and if he didn't like it in Suzdal he went to Lithuania. Quite a different reaction to insult.

As if they were different ethnoi. But we know that it is one ethnos and that we have met a phenomenon here not statically fixed, but processes of law-governed changes. Each phenomenon has to be taken with its past and with the outlook for its future. One can doubt that such nuances of behaviour as reaction to insult have any significance for geography, but there are equivalent phenomena, though less clear, that actively shape the anthropogenic landscape.

I have already established that different ethnoi relate differently to nature, but even one and the same ethnos carries on its economy by different means in different phases of its ethnogenesis, and so influences the enclosing terrain differently.

The architecture not only of towns but also of separate settlements, moreover, even of houses and farm buildings, is a component part of the anthropogenic landscape. And that it depends on the character of the activity of the people of a given ethnos is understandable without proof.

So-called 'national character' is thus a myth, because it will be different for each new epoch, even when the continuity of changes of the phases of ethnogenesis is undisturbed.

The changes take place steadily, not being functionally connected either with modifications of the geographical environment or with the succession of socio-economic formations, though con-

stantly interacting with both. But this is interference of the 'independent variables' that are interwoven in the historical process.

Objections. When history is treated as a function of time and all the preconceived notions and prejudices associated with it are rejected, it will appear that time does not behave uniformly, but now this way and now that. That statement is so unaccustomed that it is necessary to agree on the terms, because the definitions proposed here relate only to 'historical' time but do not affect Newton's or Einstein's mathematical conceptions and biological time counted by the succession of generations of the species studied. One must also not apply the features described below to geological time, since inert matter has its own laws. We shall limit ourselves to the specific features of man and of the character of his formation. That, too, is no little matter.

Historical time, in contrast to physical (extended), biological, and relative (continuum), is revealed through saturation by events. What we call 'time' is a process of equating energy potentials that are sometimes disrupted by explosions (shocks) that restore the inequality of energy potentials, i.e. diversity. The impulses arising in the biosphere because of these shocks are creativity manifested in a striving now for beauty (art), now for truth (science), now for justice (morality), now for power (thanks to this impulse states are created), and for victory (be it the conquest of a foreign country or the ephemeral success of an operatic tenor), and everything similar. These impulses may be positive, i.e. life-asserting, sparing everything living and valuing everything created by the hands of man, and negative, separating energy, information, and matter, in which information finds refuge. A negative impulse withdraws quanta of energy from the bounds of time – and that is the real end of the process. But a positive impulse reunites energy with inert matter, receives information, and the world continues to exist all over again. Everything inimitable and beautiful disappears with loss of the energy charge. That is why the losses are so great in ages saturated with acts and deeds. But Memory opposes death, and the collective memory of ethnoi is the history of culture.

Rises and falls. According to the theory of progress there are neither the one nor the other. It has become customary, and not without certain grounds, to consider that the western peninsula of the Eurasian continent has particularly great significance in the history of mankind. As evidence the flourishing of classical Greece, Alexander the Great's campaign, the creation of the Roman Em-

pire, the brilliant painting of the Renaissance, the great discoveries and colonial conquests of the sixteenth to nineteenth centuries are cited. But, it is forgotten, with that, that the listed 'flowerings' were episodes, not just on the background of world history but also on the canvas of the history of the Mediterranean basin. The flourishing of Greece was, essentially, the short-term hegemony of Athens. Alexander's victories evolved the return blows of the Parthians, Saki, and Indians, and caused the collapse of Macedonian independence. Rome – but I shall speak specially about her. And as regards the victories of the Spaniards, French, and English over red-, black-, brown-, and yellow-skinned overseas ethnai, taken unawares, it is now already obvious how ephemeral the conquests of the conquistadores, adventurers, and traders were.

The troubled times about which European historians do not like to write, but which have been the object of my analysis, were rather longer. The declines of culture are just as important phenomena of history as its rises and upsurges. Where, then, do the whole centuries without art, literature, and philosophy start from? Let me explain.

In ages of frequent migration of whole peoples to other countries, with mutual rejection and non-acceptance of others' cultures, and with contacts at superethnic level, the conditions for the preservation of memorials of art were extremely unfavourable. The heritage of Roman antiquity was preserved only under the ground, from which it began to be dug up by humanists in the fifteenth century. The marvellous icon painting of the time of the upsurge of Byzantine culture fell victim to the iconoclasts. The magnificent gold and silver ornaments of the Ugrians, Alans, people of Rus, and the Khazars were melted down into coins and ingots and dispersed to the ends of the Oecumene. Wonderful embroideries, fine paintings on silk, rich brocaded clothes mouldered away with time, while the heroic tales and myths of the origin of the cosmos were forgotten together with the languages the rhapsodes recited them in. That is why the age of the first millennium A.D. is called 'dark', 'troubled', 'cultural stagnation', and even 'barbarity'!

The roundabout way, through the history of events, has shown that this epoch was creative, tense, and tragic, and that it was not barrenness of spirit and reason that determined the observed emptiness, but the flame of hearts and passions that reduced everything that would burn to ashes.

Anyone starting to study the global patterns of ethnic history must immediately disavow the principle of Eurocentrism, which seems to many not to require proof. In fact, from the sixteenth cen-

tury to the early twentieth, European peoples grabbed half the world through colonial operations and the other half by the export of goods and ideas. The last-named also brought them no little income.

The advantage of Europeans over other peoples was so obvious in the nineteenth century that Hegel constructed a philosophy of history on a principle of world progress which had to be realized by Germans and Anglo-Saxons because all the inhabitants of Asia and Africa, the aborigines of America and Australia were 'unhistorical peoples'. But only 150 years passed and it became clear that European predominance in the world was not the road of progress, but an episode. America and Australia, as overseas extensions of Europe (Western), were directly linked with the same line; similar lines were traced out among ancient peoples, where they went to their natural end.

In other words, the peoples that it is accepted to call backward, are simply relicts that have outlived their flourishing and decline. One can say that the black Australians, the Bushmen, and even the Eskimos, are old ethnoi. That is why their material culture is so poor, and their spiritual culture so fragmentary. Ethnogeneses are discrete processes; therefore the concept 'age' is proper to ethnoi.

Very much has been said and written about the aging of peoples; historians usually understand this terminology as a metaphor. In fact, children are born and generations are consequently renewed, so what then can age? That is just what I have been trying to show, starting this time from concrete ethno-psychology, obvious for any historian or ethnographer with broad vision, rather than from general considerations of systems theory.

The principles of reference. It is sensible to base the age classification of an ethnos (any one) on an element that no system can get along without, viz., the relation of the collective to the individual. Any group limits the freedom of each of its members by the need to allow for the other members separately and for the interests of the group as a whole. An ethnos is no exception to the general rule, but the character of its effect on the persons composing it changes in the course of time, and a certain pattern is traceable in the changes.

A striving to conserve the relations between its members is characteristic of an ethnos in a static state. In a gentile society, for example, there is a rigid despotism of tradition, that fixes the place of each newborn child in life and the limits of its possibilities, no attention being paid to the level of personal capabilities. If a hero or a genius, for example, is junior in seniority to a cretin, he must, all

the same, be considered lower in social position, and even may not live to the time when his talents would be employed by the collective if some extraordinary calamity like a cruel war with neighbours or an infection, when it would be necessary to treat dying fellow-tribesmen, did not come to the aid of the junior. But even then an exception would only be made for the saviour of the tribe, and the principle of seniority would remain unfringed.

Such an attitude to the individual does not just exist in gentile society. It finds clear expression, in the developed class society, in the caste system or attenuated expression in the system of estates. In any of these variants the collective fixes the place of the individual and requires only one thing of him, viz. contentment with himself and his position, because that is the main psychological condition for the preservation of relations. This position, it would seem, does not deserve either approval or admiration. But I shall not be so categorical.

A static ethnos is guided by the same principles in its attitude to the nature around it. Nature feeds it, yielding up to it the abundance of her wealth, and the ethnos dictates to its members not to require more of nature than a given amount. In a forest 10 per cent of the trees die annually as a result of natural selection and the struggle for existence, which means that this 10 per cent can be cut for fuel and building, and not more. Similarly, the increment of a herd of ungulates can be culled for food without harm to reproduction.

And how exactly tribes of Sioux or Blackfeet knew how to determine these norms in respect of bison! The hunt was a social affair for them and any high-handedness was stopped by very harsh measures. Because of that the ethnos and its enclosing territory were in a state of dynamic equilibrium (homeostasis), that enabled people, animals, and plants to exist together for an unlimited time. But we know that this balance was achieved in any case (be it Africa, Australia, or Greenland) through an ethnogenesis that occurred at one time, and was its final phase.

History, alas, is useful only to him who learns from it. Otherwise Philistine 'common sense' proclaims the disastrous conception of the conquest of living nature. In 1894 the American geologist and anthropologist W.J. McGee wrote: 'In the subjugation of the animals of the earth, men preserve only those that can be enslaved, and all others are slain'.²⁶ And it is very noteworthy that only the Sioux put forward an opposite conception, affirming that 'everything the power of the world does is done in a circle... With all beings and all things we shall be as relatives.'²⁷ The conclusion is

unambiguous, the Sioux were guided in their practice by the concepts of 'geobiocoenosis' and 'biosphere' although they called them differently, while civilized scientists, who are at the level of the views and opinions of their time, and are held in thrall by them, have preached that man displayed his power

by transforming the face of nature, by making all things better than they were before, by aiding the good and destroying the bad among animals and plants and by protecting the aging earth from the ravages of time and failing strength.²⁸

The idea that they themselves, since they had bodies, were a component of the nature whose face they were vigorously altering, which their grandsons are melancholy about now, was foreign to that American scientist and his contemporaries. Nevertheless the cult of force reigned then, which enabled Fairfield Osborn to say in 1949 that it was in fact a history of reckless, uncontrolled human energy. This energy—the drive of the system—has swept away not only plants and animals but also the Indians themselves, whose way of life and behaviour were not understood and rejected by the bearers of this idea. The Americans therefore considered 'savages' those whose natural philosophy had outstripped their own for 300 years. As a consequence the Indians, who had managed to find an ecological niche in the biocoenoses, perished together with them, because they were justly treated as a component of nature, subject to reorganization.

As soon as individuals of a new temperament create a new ethnic entity, they put forward a new principle of communal life, and a new imperative of behaviour: 'be what you should be'. The king should behave like a king, the man-at-arms like a man-at-arms, the servant like a servant because, without rigid subordination, the new system would fall apart during a clash with an external enemy or with fellow-tribesmen who preferred the old order.

It may seem that the difference between the first and second principles is not all that great, but that is not so. In the moulding of a dynamic ethnos the category of duty to the collective plays a primary role, and not right of birth as it had been before that. The king who did not answer to his position should be suspended or killed and replaced by someone worthy; a bad knight should be exiled, a bad servant flogged. There were no rights, but there were obligations, for which rewards were proposed. The latter might be different: sometimes money (benefices), sometimes the right to hold a profitable post, sometimes the chance to share power with

the rulers. But the decisive factor of attaining prosperity was anyhow the business principle, and not right of birth.

A newly arising intraethnic system is usually inclined to aggression, the victims of which are neighbours. If the latter are strong, the system gets broken by their resistance; if they are weak the system triumphs and ethnogenesis proceeds rapidly. But there is a latent danger here, not so much for individuals of the new type as for the principle that carries them to victory over fellow-tribesmen and neighbours. Or rather the victory itself is the greatest threat. As soon as most of the problems are solved, duty begins to burden people and a new (third) principle takes the place of the old one: 'be yourself'.

When the man-at-arms wants to be not just the duke's arms-bearer, but also a Remuald or a Bertrand, and the monk not simply recites the texts of the Scriptures or says the Mass, but annotates or comments on what is read, risking an accusation of heresy, and the artist signs a picture, and the merchant does not simply seek out new trade routes but institutes a firm under his name, and the peasant not only defends the rights of the community but declares 'When Adam delved and Eve span, who then was the gentleman?', that is when a generation appears that breaks the shackles of the imperative of duty, just as earlier the chains of the right of birth had been broken.

In place of the force of duty comes the right of force limited only by the need to allow for the neighbour's also being strong and no less aggressive. The test of strength between neighbours, converted from collaborators into rivals, inevitably leads to bloody clashes, aggravated by the exasperation of the main mass, who are not ready for the development and do not want to be the object of the ambitious strivings of the members of the new generation.

The accumulated abundance of wealth and the decision of urgent foreign policy tasks free a certain number of people from a considerable part of their obligations, and then a strengthening of individualism begins, tacitly formulated by the collective in that period as an imperative—be not only the tribune who performs his duties, but also a Gracchus; not only the knight but also a Pierre Bayard; not only a member of the boyar дума but also a Vassily Shuisky; that is to say, individual features and peculiarities are manifested even more than involvement in public affairs. Previously these people had put all their forces into service to a cause determined by the cultural dominant. This difference is very characteristically traceable in art. In the Middle Ages the author of a work did not put his name on it, so that the builders who erected

architectural masterpieces are not known; in the age of the Renaissance the authors were brilliant personalities and were always known. And perhaps that is why, only, the 'Renaissance' seems a 'blossoming' to us. Indeed it is easier for the art historian or critic to write about one artist than to analyze collective creation.

But the development of individualism leads to a clash between active individuals, a bloody one for the most part. Within an ethnos, and often in a superethnic community (culture) fierce rivalry arises, absorbing forces that up to then have gone to dealing with external tasks. As a result the number of brilliant individuals is reduced and life becomes simpler.

In the thirteenth to fifteenth centuries the drive of the 'Christian world' reached its peak phase, which was very unfavourable for culture and even for the political system. The war of the Guelphs and Ghibellines led to the death of the chivalrous Hohenstaufens and the 'Avignon captivity' of the Popes, i.e. to turmoil of the Empire and humiliation of the Church. The Crusades, i.e. the first attempt at colonial expansion, finished in an immense defeat all round. The Kingdom of Jerusalem and the Latin Empire disappeared altogether from the map of the then world, and the Livonian Order, although it survived, was converted from a bridgehead of European knighthood in the assault of the east into a tiny feudal possession on territory that neither Lithuania nor Rus disputed with it.

Such a 'flowering' usually provokes a reaction, i.e. a striving to limit the strife and killing. That is also encouraged by the fact that members of the generations of individualists so intensively kill one another that the proportion of them falls, while one of them, winning, slightly modifies the principle of communal life, proclaiming 'Be like me'. This means: 'I am great, and you (addressing anyone) should copy me, because refusal to do so is sedition or heresy; but you may not and dare not either surpass me or compare yourself with me, because that is sedition and insolence; and you dare not try not to resemble, because that is indolence, and in the final count also sedition.' But there is no place for sedition in the newly organized collective, because the epoch just passing has so compromised violence that the overwhelming majority prefer any regulation that makes it possible to expect defence against the despotism of the strong.

Sometimes the victor and the legislator are an actually existing person, Octavius Augustus and his successors, for example, but often they are an abstract ideal of a person who should be emulated or whom it is necessary to imitate. In either case the sense of the matter is not altered, and variations of the relation be-

tween physical and moral coercion are non-existent for ethnological analysis.

In spite of the external differences, 'flowering' and the subsequent situation, which is usually called a 'civilization', are not different phases of ethnogenesis. According to the principle enunciated above, which must be consistently observed, a phase of development is determined by appearance of a generation of individuals with a new psycho-nervous disposition. But here we observe only a change of proportion between already existing mentalities. A 'civilization', as a phase of development, is a time favourable for the accumulation of material culture, for the regulation of living, and an obliterating of local ethnographic features inherited from past epochs. It is a time when the diligent Roman Philistine—Augustus' 'golden mean'—begins to flourish. The Philistine's mentality is met at all stages of the development of an ethnos, but in the early ones he is suppressed and kept down by the knights or individualists. Here they coddle him, because he has nowhere to creep, nothing to gain, and is ready to revere the lord, so long as he is left in peace.

Healthy 'Philistine' cynicism inevitably follows a rebellious, mutinous epoch. In Europe it found verbal embodiment in the thesis *Cuius regio, eius religio* (whose the region, his the religion), when Catholics and Protestants ceased to distinguish each other—the supreme manifestation of indifference. In Byzantium such weariness set in under the Macedonian dynasty and the Ducas (eleventh century). Then the Empire, defended by brave Slavonic *varangs*²⁹ and capable Armenian officers, thrived and waxed fat and—went downhill. In the culture of Islam civilization was the epoch of the Timurids, Sefewids, and the Great Moghuls; in China it was the time of the Yuan and Ming dynasties; in Rome the principate, crowned by the reforms of Diocletian. For the old Near Eastern Orient the role of reconciliator was taken on by Cyrus, king of the town of Anshan, and the Achaemenid Empire was the phase of civilization, i.e. the dying away of passions and accumulation of material wealth.

As is seen from this brief, far from full list, the phenomenon of 'civilization' in the sense indicated is characteristic of all peoples that did not perish before reaching that age.

The system described should, it would seem, be extremely stable, but historical experience indicates just the opposite. It was the 'civilized' empire of Nebuchadnezzar that the prophet Daniel likened to a colossus with feet of clay (an image that became classical). All the 'civilized' empires listed above fell with staggering ease under the blows of small, 'backward' enemies. Local reasons can be found for each separate case, but there is obviously something

general lying in the causative depth and not on the surface of the phenomenon. Let us go into it.

In the 'Christian world', in fact, there was not even a shadow of agreement. Kings ignored Papal bulls. Barons fought each other, paying no attention to the proclaimed 'God's peace', i.e. the truce decreed by the Church. Manichaean Cathars preached in the towns; in the countryside pagan rites were observed. And everyone struggled for himself and not for proclaimed and incontestable principles. But the integration of this mass of various strivings and aspirations built up into an ethno-cultural dominant manifested not within the superethnos but on its boundaries, in struggle with unbelievers and schismatics.

In the sixteenth to eighteenth centuries there was a splitting of this relation to the surroundings; another simplification of the system set in that wiped out the provisional boundary. In the nineteenth century an elementary thirst for enrichment, a kind of vulgarized greed, became a feature of the stereotype of behaviour.

Remember that the conquistadores and the corsairs took a deadly risk, only a few survivors bringing home gold to throw about in taverns. In the nineteenth century risk was avoided and incomes were put into banks. The wars of the Huguenots against the League were replaced by voting in parliament; and duels became safe because they were stopped at the first wound. In the eighteenth century wars had already been converted into the political actions of rulers and affected only the soldiers. Sterne made his famous journey through France at the height of her war with England; and it did not occur to anyone that he, a writer, had any relation with the military operations. Even Napoleon's conquest of Europe met with popular, i.e. unconscious-impulsive, resistance only in 'backward' countries like Spain and the Tyrol, where mediaeval traditions were preserved. And Russia was victorious in 1812 in spite of the enemy's threefold preponderance in number of troops.

A law and order was established in Europe supported by custom and not by force. Thanks to the achievement of orderliness, it became possible to subjugate all America, Australia, Africa (with the exception of Abyssinia), and India, and economically China, Turkey, and Persia. Technical civilization was extremely developed, subordinating some of the scientific disciplines, and art and the humanitarian sciences were considered a necessary luxury for which some money (but not much) was not grudged.

In short, in place of the extinct Pax Romana arose the Pax Europaea with overseas extensions, the cause of the flourishing of the one civilization and the other being a lowering of drive—from the

maximum to the optimum, right down to the turning point, after which it moved to the minimum.

With that I come to the end of my excursus, because according to the condition set at the beginning of my study, I am avoiding the aberration of proximity by which recent events seem more significant than old ones, i.e. the scale without which any study will be meaningless is violated. It is expedient only to compare the analogous magnitudes, i.e. other superethnic systems. I have therefore had to resort many times during the exposition of my conception to antiquity and the Near Eastern Middle Ages for examples, so there is no need to repeat them here.

The Phases of an Upsurge of Drive

The birth of an ethnos. The simplest version of the beginning of ethnogenesis is the rise of a new ethnos on the background of a described static state that cannot alter of itself. (1) None of the members of the ethnos want such a change; (2) none of them can even imagine it; (3) in order to change the character of the process a powerful, purposive energy impulse is needed that no self-awareness can create because that would contradict the law of the conservation of energy. Nevertheless ethnoi do arise from time to time. Let us see how.

Several ethnoi with different systems of economy and a different culture live alongside one another in one territory. They are habituated to each other; there are constant but insignificant conflicts between them and, as a rule, these pass without marked consequences. Since the fluctuations occur within quite regular limits there is homeostasis.

But now the population of the region passes into a dynamic state, i.e. begins to develop. The first stage of development is a breaking of the established relationships, like an explosion. That always happens as follows: a certain number of persons appear in one or two generations who are not resigned to the limitations that their grandfathers willingly put up with. They demand a place in the sun corresponding to their talents, energy, feats, and successes, but not previously accorded them, and determined only by accidents of birth in some one family. The first of them perish because the collective resists them, but if the process goes on long enough, there proves to be a sufficient number of these hothead, desperate, foolhardy, reckless malcontents to rally and impose their will on people of the old disposition. The foundation of the old temple

rests on the bones of martyrs and victims. So it was with the founding of Rome, when the Latin emigrants gathered on the seven hills for war with the kings of Alba Longa; such were the 'faithful' of the robber-shepherd David, who united the remnants of the twelve much battered Jewish tribes in a strong kingdom with a centralized authority, religion, and ethnic self-awareness. In both cases the slaveowning formation was preserved. The above-listed did not differ in any way from the companions of Muhammed, the Mohajeers and Ansars, and the Zulus, the heroic soldiers of Chaka, Dingaan, and Cetywayo, and the Matabele on the banks of the Zambezi. To them all were similar not only the war bands of the Vikings but also the barons of the early Carolingians, Charlemagne's counts, and the knights who were the prototypes of the literary images of the knights of the Round Table; they after all also broke with the accustomed way of life and regarded that not as a sin but as a feat.

Here is a brilliant example of drive and change of the ethnic stereotype of behaviour. In the twelfth century the Great Steppe was inhabited by various peoples whose social life was regulated by tribal and clan norms and standards of life that had arisen after the disintegration of the military-democratic formations, the hordes. More than half of the nomads professed Nestorian Christianity, but the Mongols in Transbaikalia and Eastern Mongolia had their own religion. In this initial condition there gradually took place a process of the isolation of so-called 'men of long will' from the tribes, i.e. of those with most drive who did not accommodate themselves to tribal life. At first they sought sustenance in the hills and steppes, but inevitably had to resort to robbery, and then their death was decided in advance. Later they began to form small bands, and finally rallied around Temujin, an impoverished member of the noble clan of Borjigins, who had been orphaned at the age of nine. In the second half of the twelfth century Temujin, thanks to skilful, artful diplomacy and organizing talent, succeeded in creating first a small horde and then uniting the whole Great Steppe up to the Urals, and in reconciling the tribes conquered by force of arms to his authority, so that they took part in distant campaigns on equal terms with the Mongols.

The direction of their dominant was suggested by the need to react to an extremely difficult and all the time worsening situation. The Chinese and Central Asian Muslims were behaving toward the Turks and Mongols in the same way as the North American colonists did toward the Indians. The Chinese and Muslims systematically attacked the nomads with the aim of physically exterminating them, sparing only the small children, whom they sold into slavery.

Therefore the nomads, guided by clan categories of blood feud and collective responsibility, had an instinctive but conscious need to fight the aggressors.

The steppe, united by Temujin, proved strong enough, answering blow by blow, to defeat their perennial enemies and (what is especially impressive) Christians and pagans acted hand in hand. The later campaigns of Genghis-khan's heirs were provoked by exceptionally hostile acts by the Chinese national Sung Empire, the splinter groups of the broken Khorezmites of Jelal ud-din, the Russian dukes who took the side of the Kipchaks (Polovtsy), and the Hungarians, who wiped out a Mongol embassy. The Mongols kept part of the conquered lands thanks to the fact that there were groups among the local population who considered an alliance with the Mongol khans salutary for themselves. Such were the Armenians in the Near East, who were under pressure from Muslims, and Alexander Nevsky in Russia, who was defending the Russian land against Catholics (Swedes, Germans, and their allies). The vast territories and diverse populations could not constitute a single whole, and broke up into several states in which the local population gradually assimilated the small bands of Mongol conquerors, creating new ethnoi with a different social system and a different culture: the Tatars of the Golden Horde, i.e. the Volga urban population, of various tribes, of course, united by loyalty to the Genghisite khans; the steppe Nogai in the west and the eastern nomads united in Kazakh tribal unions (*juses*); the Uzbeks, Oirats, Buryats, and remnants of the Khalkha Mongols and Berguts.

These examples of the rise of an ethnic system are clear because they are simple. The cruel drought of the tenth century A.D. depopulated the Great Steppe for a century, which was peopled again during the next moistening of the arid zone in the eleventh century. The process of readaptation led to an increase in the population of the steppes but not to integration of it. Only a drive impulse rallied the isolated tribes of the Pacific maritime taiga and the Transbaikalian steppe into two powerful creative ethnoi, the Jurchens in the east and the Mongols in Transbaikalia. Integration proceeded relatively easily since it arose on the basis of a homeostatic state of the primordial ethnic substrata. The expansion of the new ethnoi was resisted in the main by foreigners. In spite of their immense preponderance in number and technique they were defeated. That does not mean, of course, that victory of the Mongols was preordained, because the Aztecs and the Zulus suffered defeat in similar situations. The Mongols

simply knew how to exploit the opportunity for victory, but that is already not ethnogenesis but political history.

The case is rather more complicated when a new dynamic state arises not from a static one but from a dynamic one that has already covered a considerable stretch of evolution. Such a situation occurred in the first century A.D. when, on the limes of the Roman Empire, at the junction of the Hellenic, Hebrew, and Syrian ethnai there arose a population equally similar and equally foreign to all those listed above. This was a Christian community that gave 'unto Caesar the things that are Caesar's', did not distinguish in its milieu between Greek and Jew, and was hated by everyone around it because its ethnic dominant was foreign and incomprehensible to them.

From the tiny Christian community of the first century A.D. arose later the huge ethnos and culture we call Byzantine. The mechanism of the forming of the Christian ethnos differs outwardly from those considered above, but was identical with them in essence.³⁰ The preachers and martyrs, apologists and contemplators, behaved just like Roland who died in the gorge of Roncesvalles, Leonidas of Sparta at Thermopylae, and many other heroes. The tactics of behaviour were changed, but the psychological pattern was the same, and also the results—the creation of a new collective of people with an original culture, i.e. a new ethnos that three hundred years later, having supported the leprous tyrant and murderer Constantine, gave him victory and the diadem, contenting itself only with getting the right to legal existence. And then, from A.D. 313, the new ethnos 'Romaic Christians' became a fact of world-historical importance.

The upsurge of drive. The 'dynamic' phase of ethnogenesis is always linked with expansion, just as heated gas expands. The Byzantine Christians were no exception. But preaching monks rather than soldiers and merchants carried their invincible energy beyond their native land. Egyptian hermits had already in the third century A.D. left the Thebaid and gone preaching in the west through pagan Rome and Druidic Britannia to the green island of Erin whose inhabitants never knew Roman despotism and civilization.

In the fifth century A.D. an independent Christian church arose in Ireland that categorically did not recognize either the Pope of Rome or the western Church calendar, because their tradition had been brought from the east where a new formation—Byzantium—had arisen.

The Byzantine ethnos had no ancestors. That does not mean, of course, that the people who comprised it were not descended from *Pithecanthropus*, but an ethnos is not a stock of people but a dynamic system arising in historical time, with an impulse of drive as a necessary component in the initial moment of ethnogenesis, a process that smashes an old culture.

In the Mediterranean there was a single Hellenistic culture in antiquity that had absorbed in the process of its development Latium and the Phoenician cities. Ethnically it resembles the West-European because the main Hellenic core did not exhaust all the variants of the diverse Hellenistic culture. Rome, Carthage, and Pella, of course, had their own local features and were independent ethnoi, but in the superethnic sense came within the orbit of Hellenistic culture. There is nothing new in that, incidentally, but it is important for me as a starting point. Roman domination encouraged ethnic levelling but the equalizing of Greek and Latin led to almost the whole population of the Mediterranean merging into one ethnos. But in the first century A.D. new people appeared in the Roman Empire who formed a new entity in the next two centuries. They counterposed themselves to the 'pagans', i.e. to all the rest, and in fact distinguished themselves from them by the character of their behaviour. Obviously the common denominator was not an ideological or political attribute, but an ethnological, i.e. a behavioural one, which was really new and unaccustomed for the Hellenistic culture. It was foreign to the Jews, too, incidentally, who had not by any means merged with the Romans and Greeks, but were not persecuted for their faith.

Members of the Christian communities constituted the nucleus of the 'Byzantine' ethnos, and how that came about we shall now see.

In A.D. 330 the Emperor Constantine transferred his capital to the little town of Byzantium and converted it into luxurious Constantinople. People with drive flowed there from all over the place. Many Goths settled in Thrace on the pretext of service in the armies. Slavs broke the Danubian line of fortifications and settled in the Balkan Peninsula, including the Peloponnese. Syrians were spread from the valley of the Po to the bends of the Huangho. By the sixth century a multi-lingual, multi-tribal but monolithic ethnos had been created to which I arbitrarily attach the name Byzantine. Greek—a heritage of antiquity—was only the state and generally accepted language, but at home everyone spoke his mother tongue. Very soon this 'Byzantine' ethnos became a superethnos because its charm conquered Armenians and Georgians, Isaurians and Slavs, Alans and Crimean Goths.

The history of Byzantium has been interpreted either as a continuation of the history of the Roman Empire (Gibbon), or as the creation of a Christian 'Greek Empire' (Uspensky, Kulakovsky), or as an East-European version of the feudal formation. All these aspects illuminated various aspects of Byzantine history, but the problem of the originality of Byzantine culture remained unsolved. My point of view also does not pretend to a universal description of Byzantium as an entity, but it fills a lacuna in the ethnic history of Europe.

I shall give the name 'Byzantium' to the phenomenon that arose after the impulse of drive of the first and second centuries A.D. in Palestine, Syria, and Asia Minor, which took shape as a church, with all its deviations and currents, and found a stereotype of relationships with the secular authorities. This integral entity was much broader than the boundaries of the Eastern Roman Empire and survived it by many centuries. One may dispute the title, but it is not worth the trouble, because it is comprehensible and settles the problem by a posing of the matter that is constructive for further argument and discussion.

Second Rome or Anti-Rome? If we were to describe the descending limb of the curve of ethnogenesis, the task would be easy. We would establish a progressing simplification of the ethno-social system, a lowering of its resistivity and infiltration by foreign elements. But when we have to describe the ascending limb, then it is much more complicated. With mounting drive the dominant is not found immediately. Certain directions of development begin, struggling more fiercely with one another than with their natural opponent, the departing traditions of the dying superethnos.

But, in spite of that, all resisting systems operate the same as regards the previous one, even when they take on its defence. Julian the Apostate tried to restore the Roman faith, and replaced Christ by Mithra. But Mithraism was a religion as foreign to the Romans as Christianity; these religions penetrated Rome at the same time, under Nero; the devotees of Mithraism were not the Roman *nobili* but the Illyrian soldier emperors; and mainly legionaries torn from their homes and native lands, and more often foreigners, were initiated into Mithraic mysteries. Even if Julian had been victorious and had rooted out Christianity, he would have consolidated, not the posterity of the god Quirinus and the she-wolf, but a system that would be more correctly understood as Anti-Rome, only in another style than that created by the Christian communities.

They worked away gradually over three centuries, uniting elements with drive that had fallen out of the decrepit system, which did not give them an outlet in creativity for their unruly passions. The Christian communities were the most impulsive force in the Empire.

But since the Roman Empire was a single cultural-social political entity, even with the administrative division in 'East' and 'West', regional populations with both drive and sub-drive coexisted in it that exchanged entropy and negative entropy with one another. In other words, bearers of the tradition of the antique decline of morals lived side by side with vigorous myth-creators, initiators of new traditions. Territorial division would have been good for them, but there was nowhere for them to go, because Rome so offended the surrounding ethnoi that they began to detest all Romans. That is why the superseding of one ethnos, the Roman, by another, the Byzantine, took place over the whole territory of the Roman Empire and was such an agonizing process.

Therefore one can only arbitrarily suggest a date as the 'beginning' of the new process of ethnogenesis and the first phase of its formation.

In the middle of the first century A.D. the preaching of the Apostle Paul laid the beginning of consortia that had not yet emerged from the initial ethnic substrata, but the Romans already saw some sort of entity in them, though they perceived it as a variety of Judaism.

In the middle of the second century, thanks to the activity of St. Justin Martyr, the Christians emerged as a special subethnos categorically dissociated from Judaism; contemporaries counted the gnostics as Christians.

In the early fourth century the Christians were an ethnos within the Roman superethnos that Constantine was forced to recognize. Nevertheless, the Eastern Roman Empire created by him was not yet Byzantium in the ethnological sense of the term; it should rather be understood as a field of the rivalry of Church Christianity and the Mithraists, Neoplatonists, Donatists, Arians, and other subdivisions of the new ethnic element being created before the eyes of the historian and becoming obvious to contemporaries.

Once the warlike, and later on freedom-loving ethnoi of the West, after their conquest by the Romans, supplied brave horsemen and skilled archers to the legions, but by the fourth century A.D. even that was finished. Everything was swept away by irreversible processes of 'drive entropy'. Not only the Gallo-Romans and the Britons, but also the Batavians, Frisians, Iberians, and Nu-

midians, in spite of the existence of personal qualities like courage, physical strength, hardiness and endurance, etc., did not have the additional quality that would have enabled them defend their property, families, and life from enemies. The rich, cultured Alans behaved the same way on the eastern frontiers of the region, which enabled them to be conquered by the savage, but not numerous Hunni.

The 'last Romans', who were still encountered in blessed Italy, settled by newcomer Asiatics, were the most craven of all.

The valiant Thracians and Illyrians had already squandered their drive in the third century A.D. The mechanism of that was simple. Courageous, energetic youths had joined the legions for 'careers and fortune', while the passive types had started families in the homeland. So the extreme attribute was separated from the population.

In the fourth century the most efficient and disciplined Roman troops consisted of members of Christian communities. Even Julian the Apostate was compelled to employ them. But they categorically refused to fight against their fellow-believers, for example the Bagaudae rebels in Gaul at the end of the third century. Such principledness is sometimes inconvenient, but it made the legionaries, brought up in the strict rules of the Christian communities, more reliable than the demoralized citizens of the Roman world who did not believe in Jupiter and Mars and had long ago lost any notion of fidelity and conscience.

It is a waste of time to try and find an explanation of the difference that arose between the Eastern and Western halves of the Roman Empire in social system. It had been quite unified already in the second century A.D. And the racial composition of the population could not have been of any significance because the inhabitants of Greece and Syria were already regarded in Rome in the first century as degenerate descendants of once powerful ancestors. And that was justified.

But in the fourth century the inhabitants of the towns, but not of the villages, of the East took the initiative. Indeed, people with drive, oppressed by the tedium of village life, gathered in the towns. The results of the impulse of drive told in the same fourth century. In the place of citizens of the Roman Empire, in Asia Minor, the Balkans, and Syria, where the new ethnos had taken shape that I arbitrarily call Byzantine—barbarians were repulsed, a vast city, Constantinople, was built, crafts were established, trade was organized not only with neighbours but even with China, and—the main point—the landscape of Syria, Asia Minor, Thrace, and Ma-

cedonia was preserved. The extensive economy obviously curbed to some extent the tendency to despoliation inherent in migrants, who proved in Byzantium to be subject to existing laws and customs.

Even in the capital of the Empire, Constantinople, in spite of its population exceeding a million, nature was not annihilated. The city was buried in the greenery of gardens, carefully watered, which fed the families of the inhabitants. The Black Sea and the Sea of Marmora supplied the population with fish; grain was imported from Egypt, where the soil was annually renewed by the floods of the Nile, and from black-earth 'Scythia' (the steppes of the northern coast of the Black Sea). It was proved that a culture could be created, crafts developed, and magnificent structures erected without despoiling nature. That was achieved because the surplus energy (drive) of the Byzantines was expended on theological disputes and dissensions, which did them much harm, but were harmless as regards the surrounding nature.

Decomposition and regeneration. But everything happened differently in the West. The development of engineering (roads, aqueducts, gigantic galleys) made it possible to ensure supplies for the two-million population of Rome. Grain was brought there from Sicily and North Africa, wine from Greece and Provence, wool from Spain. Only fresh meat and flowers were then not amenable to transportation, therefore Italy was turned into a pasture for cattle, and plantation of violets, because ladies have always loved flowers. Rome produced nothing, only consumed. But whereas the Roman officials in the first and second centuries A.D. had known how to organize the exploitation of the provinces and to reward their fleeced population by establishing a firm order and certain rule of law (far from always observed), in the third and fourth centuries it was no longer a matter of that. The soldier emperors converted the country into an arena of civil war for power. And because the legionaries had to be rewarded, there was a general confiscation of the rich latifundists and squeezing of money from the poor landworkers. The latter in turn ravished the land of the parcels, trying to subsist today, because it was terrible and senseless to think of tomorrow's punishments. The population steadily declined in numbers, and those who remained alive lost the will to resist. It was not the vital forces of an ethnos but the social structure and state traditions that held together the grandiose structure of the Roman Empire at that time. It could not long continue.

The weakened West easily submitted to the booming East; after the last attempts at resistance in A.D. 393-394, led by the Frank Ar-

hogast, it was converted into a periphery of Byzantium, already administratively formed into an Orthodox empire. That measure was carried out by Theodosius and had most important consequences: the ethnos formed on the ideas of Christ expanded so far that it became a superethnos, and the currents of Christian thought became a symbol of self-asserting ethnoi, hostile to centralized authorities, lay and spiritual.

The Goths retained Arianism, condemned in A.D. 381 by the Oecumenical Council of Constantinople. By that they distinguished themselves from the Byzantine entity. The Berbers of Numidia supported the Donatists not even as heretics but simply as schismatics – and Africa passed out of the hands of the Emperors of Rome. But the descendants of the pagans of Gaul and Spain appealed to the Oecumenical Church for the support and expected aid from the imperial authorities – alas, without success. The East, too, lacked military forces.

In that super-difficult situation there lived, conquered, and died Aetius Flavius, son of a Roman and a German woman, who defended Gaul against the hordes of the Huns and Germans, but was murdered by the Emperor Valentinian personally during a business talk. Neither Aetius nor Valentinian had anything of the Roman about them, but the former was courageous and clever, while the latter was an envious rake and lecher. There are various people in any superethnos, but there proved to be more like Aetius in the East than in the West. That is why vile crimes, which were also frequent in Constantinople, did not ruin that city, while Rome was sacked by the Vandals immediately after the death of Aetius in A.D. 455. If there had been real Romans there they would have defended their Eternal City.

Some people suggest that 'the barbarians, having destroyed the Roman Empire, did not annihilate the Roman people but merged with them'. Is that so? Look at the demographic facts: in the first century A.D. the population of Italy was seven or eight million, and around 600 A.D. four or five million, a halving in spite of the influx of Langobards, Heruli, Rugi, Goths, and immigrants from Syria and Asia Minor, i.e. Christian Semites. It was the last-named who constituted the bulk of the population of the towns of Northern Italy (Milan, Verona, Padua, Ravenna, and Aquileia) when the Latin population of Italy had been steeply reduced because the majority of the male population belonging to the lower orders had served in the legions after the reforms of Marius and returned so exhausted that they did not acquire families. The rich, the *nobili* and the *equites*, had concubines from the slave women or went in for unnatural prac-

tices. The Roman matrons, too, were not behind them in that. So the almost halving of the population, together with the recorded immigration from the north and the east, indicates a change of *ethnos* in Italy in the fifth and sixth centuries A.D. The old *ethnos* disappeared and in its place an ethnic conglomerate appeared.

When the Goths and the Langobards conquered the Apennine Peninsula, it was sparsely populated. That is why they succeeded in subordinating it. I have dwelt on this example in such detail so as to explain the whole complexity of the problem of ethnogenesis, which cannot be answered without studying history.

It was not like that on the eastern frontiers of the former empire, where the Christian stream proved viable and gave rise to an entity that had no name for itself. On the basis of the early Christian communities (which had grown rapidly by the fifth century A.D. over the whole extent of the Roman Empire and a number of neighbouring countries) an *ethnos* was created that called itself by the old word 'Romaic' (but I have already spoken about this in detail above). From the sixth century Macedonia, Thrace, and the Peloponnese had been settled by Slavs, the Epirus by Albanians, the south of Asia Minor by Isaurians, its centre by Galatians, the north by Lazi (Georgians), the east by Assyrians, and Syria, although it had a Greek substratum, but only in the towns, and it was not numerous. The native Greek population held out for a longer time on the islands, but Crete and Cyprus were conquered by Arabs in the eighth century, and their Greek population was sold on the slave markets. So there remained the urban population of Constantinople, which had a very motley population but employed Greek as the generally spoken and literary language.

So, can one consider the Byzantine *ethnos* a continuation of the Roman or Hellenic, although it had received a rich cultural heritage (languages with a rich literature, towns with water mains, gardens, and fortresses on the boundaries)? The new people used some of these goods; some they scorned, and some they lost with sorrow. But the whole mood of the 'Byzantines'—Roman Christians—was different than that of the Greeks and Latins. And the chief thing is that, with the cardinal change of the ethnic dominant, the system's tense of drive grew and did not fall.

The new *ethnos*, which arose from Christian confessional consortia, displayed an energy quite lost, it would seem, in the Roman Empire. This energy pushed Egyptian monks of the Thebaid, and Syrian dogmatists from the banks of the Orontes and Euphrates, to Ireland, India, Central Asia, and even China. It was a spiritual-intellectual expansion, the more surprising that it was not supported

and reinforced by the force of weapons, and did not pursue any practical aims or material interests. The reasons for this activity lay in it itself. It was an act for the sake of the self-satisfaction of being aware of doing one's duty. This sincerity affected the hearts of the people addressed, and ensured the preachers of the new religion a success that immeasurably surpassed the actual expenditure of energy from the preachers' high drive.

But within the Empire that same feature impelled people to religious disputes that passed into political discord. Why was it necessary for a dispute about the relation of God the Father and God the Son to entail bloody excesses that yielded no real benefit for either the Orthodox or the Arians? On the contrary, the Byzantines of the fourth to sixth centuries sacrificed economic and political benefits for the sake of principles most of which proved inviable and disappeared.

But a certain part was preserved, and that seemingly the most valuable. These were principles that antiquity had not known, that the Christian West did not master, and that the Muslim East altered to its own key. Byzantium included spiritual elements, especially conscience, in its constitutional system, elements without which it was very difficult to build internal relationships, and found means of combining them with the needs of the state. The state did not lose by that.

Byzantium did not know the ulcer that corroded Western Europe, viz., the struggle of the secular and spiritual powers. Beginning with Constantine the Great, the emperor, on succeeding to the throne, received the rank of deacon thanks to which he could take part in Church councils and dictate decisions to them that were considered binding because 'the emperor is the supreme master of the creeds for the churches'.³¹ That put the Patriarch in second place, but gave him opportunities the Pope of Rome did not have. For the emperor was not just a sovereign autocrat but also a man, sinful and weak. The Patriarch, as confessor, could impose a church penance on him, forbid him to enter a church, refuse a marriage or a divorce. The emperor, true, commanded the army, but it could not go into battle without the blessing of the Patriarch. And if the emperor had a bureaucratic administration, the Patriarch was obeyed by an army of monks and theologians. The forces – spiritual and secular – counterbalanced one another, so that the new ethnic entity was strong. But culture?

Overheating of drive. Both trends of antique thought, the natural philosophy that gave rise to Hellenistic geography, and the ethics of

the Socratics, Stoics, and Epicureans, had ceased to be actual for people who believed in resurrection of the dead. Existence beyond the grave was considered just as incontestable as real life; consequently a concern arose for saving one's soul after death. That seemed more important than preserving the present short life, because the afterlife was represented as eternal, and there was practical sense in ensuring happiness for oneself in it. Eternal salvation from the griefs and sorrows of the world was best ensured by a martyr's death, so that some African Donatists, called 'circumcellions' (i.e. 'vagrant monks'), formed bands of fanatics who, encountering a solitary wayfarer, would demand that he kill them for the glory of Christ. A person could beg to be spared from this obligation, because it was terrible for him, say, to kill even a chicken, but they gave the unfortunate the choice of killing them or being killed himself. For the circumcellions could commit any deed because a martyr's death atoned all sins. And the poor creature was forced to take a cudgel from them and bash their brains out in turn. And they died in expectation of eternal bliss.

That movement was wiped out by the persecutions of St. Augustine, the bishop of Hippo Regius in North Africa.

In Syria and Egypt fanaticism took less acute forms—monasticism. People subjected themselves to tortures, deprivations, fasting, and celibacy, for the sake of eternal bliss. Those who stayed in the desert—hermits—did not cause anyone trouble, but the vagrant monks, of whom there were many, were a constant worry for the governors of the provinces, and even the emperors, because they were afraid of nothing and no one, depended on no one, and acted extremely impetuously by instinct, not always without harm for neighbours. This was an extreme degree of drive that did not submit either to true reason or to the force of circumstances. The monks therefore rapidly perished, but that was what they wanted.

Fortunately for young Byzantium, the fanatics were in the minority for all that. The leading role in the Church and state was taken by people with drive but who had not lost their reason. For them, too, the doctrine of salvation was important, but they wanted to understand it. While the Church was hunted and persecuted, and Christians lived under threat of death, they stuck to each other. But when they were permitted to profess their faith freely, it turned out that its main principles were perceived and understood differently. And the flame of drive, burning the hearts of people of that time, caused fires quenchable by a flow of blood instead of friendly disputes and talks.

From my standpoint, new consortia embodied in social forms should have arisen, with the development and increase of drive, 300 years after the impulse and by the end of the incubation period. In Byzantium these forms were sects formed as the profession of certain theses in Christianity. In each sect there was a nucleus of sincere devotees, an envelope of those who outwardly shared an opinion and sympathized with it, and a milieu of indifferent people who used the collisions for personal ends. The latter included almost all the emperors, with the exception of Julian the Apostate, a sincere Mithraist. But Julian was a subtle politician. He did not carry out any religious persecutions, giving the representatives of the various trends of religious thought full opportunity to fight one another, but not against his power.

It will readily be noticed that neither the drive of monasticism nor the masses of sub-drive could be employed for the needs of the state. But since the position on the frontiers was extremely acute, the need for soldiers and officials was great. They continued to take on foreigners for these duties, most of all Goths, since they were rather more tactful than the Vandals, Gepidae and Heruli.

Gothic youths willingly entered service in Constantinople, made careers up to the rank of general, and often carried out coups d'état, enjoying the support of fellow-Goths. They also created natural consortia in the urbanized countryside of the capital, adopted Christianity without fail, and joined some confession, undoubtedly without going into the theological fine points, but knowing firmly that their opponents were wrong in the supreme sense — why, the theologians knew.

A counterweight to the Germans were the savage Isaurians, descendants of the Cycladean pirates. Defeated by Augustus they had freed themselves from any influence of the Roman authorities during the troubles of the third century, and had resumed robbery and pillage on land and sea. Their savage courage assured them careers in Byzantium, where one of their chiefs, Zeno, became emperor (A.D. 474-491), and another, Leo III Isaurian, founded a dynasty in A.D. 717. Being rivals of the Goths, the Isaurians supported another creed, again irrespective of its content.

At the beginning of the fourth century a dispute began in Alexandria between the presbyter Arius, a learned and irreproachable man, and the Bishop of Alexandria, who was supported by the deacon Athanasius, an ascetic and sincere fighter for his convictions. They were not thinking about the Goths and the Isaurians, but their dispute became a symbol of the struggle and an indicator of the processes of ethnogenesis.

Exactly the same craving for independence and originality was manifested by Egypt and Syria with Mesopotamia. Here and there consortia arose with confessional nuances and subtleties, the consequences of which determined the history and cultural development of Asia and North Africa for many centuries. But I must speak about the forming of the tension of force or drive in ethnic refraction in more detail.

The poetry of concepts. The need for knowledge and understanding is no less strong than the need for food or a woman. It is more variable, and is manifested in different people now as a craving for creation and now as a thirst for blind faith, but it is always directly proportional to drive, and its vector is determined by the presence of actual, pressing problems.

In the fourth century Monarchianism, according to which Christ was God the Father, and the doctrine of Paul of Samosata, who taught that Christ was a man inspired with divine wisdom, had already been rejected. But the question remained. Presbyter Arius waged the polemic. He argued that Christ was the divine Word incarnate (Logos), but since he was the Son of God, there was consequently a time when he did not exist. The Word was from the beginning but was not everlasting; it was 'less' than the Father, because it had a beginning. If the Word was not born, it meant that God the Father was not the father and God the Son was not the son.

No, Bishop Alexander and Deacon Athanasius argued against Arius, the Father and the Son co-exist, but the Son was born as a ray of light from the source of light. The words 'Father' and 'Son' were just a metaphor; in actual fact the Word was one person (hypostasis) of the Holy Trinity.

Let me make the problems more precise. Arius affirmed the likeness of the Son to the Father, Athanasius the consubstantiality of the Father and the Son. In Greek these words differ in only one letter. Was it worth killing so many people for the sake of one letter over nearly three hundred years? Of course not, but if they were killed it was not for the sake of it, and not because of it, but simply under cover of it.

But the choice of excuse or pretext indicates that not only Church thinkers but also the masses of illiterate people were capable of inscribing philosophical symbols on their banners and going into battle under them. At that time thought was respected.

The poetry of philosophical concepts drew the whole eastern half of the Empire into its circle. Both the learned clergy and the

people took equal part in the disputes. In A.D. 321 a council held in Alexandria condemned the teaching of Arius. The Oecumenical Council in Nicea in A.D. 325 decided the matter in favour of Athanasius. Arius was exiled, and his works burned.

In A.D. 335, the defamed Athanasius was exiled in turn, and a year later the Emperor Constantine the Great rehabilitated Arius, who then and there died, either by being poisoned or from nervous shock. Nevertheless the Arians triumphed at the Council in Antioch in A.D. 341. They were protected and patronized by the Emperor Constantius. But, as always happens, the victors quarrelled. Some sought a compromise with the Nicene Creed, others went further than Arius, demanding that all the dogmas be clear to reason, while another group still proposed evasive formulations in order to avoid a reproach of error.

The Council of A.D. 359 in Rimini worked out the official doctrine of Arianism. During the past period Goths, Burgundians, Vandals, and Langobards had been baptized. They constituted the guard of Constantius, who ruled a very turbulent country.

And the Niceans were exiled. Only the pagan Julian defended them, granting freedom of religion so that the Christians would fight each other.

Only in A.D. 381 did the Spaniard Theodosius convene the Second Oecumenical Council in Constantinople, which anathematized Arians and Macedonians.³² From that time on Arianism became the confession of Germans but not of Romans. The philosopheme passed from the poetry of concepts into ethnology.

Conflicts sometimes arose on the soil of misunderstandings that had no relation at all with underlying theological reasons, rather than on matters of principle of dogmatics. In A.D. 430 Nestorius, born a Persian, a very strict and learned man, became the Patriarch of Constantinople. Both aspects wounded the capital's clergy, who were not foreign to worldly temptations, against which St. John Chrysostom had also struggled unsuccessfully in A.D. 397-404. In the theological debate Nestorius had pronounced a phrase that was canonically unimpeachable: 'God has no Mother'. His enemies there and then misinterpreted that thesis as detraction of the Virgin Mary. And they got rid of Nestorius, condemning him at the Council of Ephesus in 431.

It might have seemed a good moment to establish peace, but the Egyptian monks came out for denial of the human element of Christ and, in A.D. 449, representatives of all the churches of the Empire and also of other trends came to an Oecumenical Council, again at Ephesus. The issue was whether there was a human sub-

stance in Christ as well as the divine. The question was not an idle one at that time. If the Egyptian Monophysites were right, then not a man but God suffered on the cross, God who could easily suffer the ordeal and torment and even not feel them. But if so, then he was not an example for us people because we are weak and are susceptible to pain. But on the other hand, was recognition of human nature in Christ not a belittling of him? Therefore the Monophysites shouted: 'Cut in two those who recognize two natures!'. The Council promised to be stormy.

The doctrine of the two natures was supported by the Greeks and the Italians (the Patriarch and the Pope); the Egyptians opposed them. During the session a crowd of a thousand Egyptian monks, unkempt and bearded, in hair-shirts, and wielding big axes, broke into the premises where the Council was meeting. The monks began to beat up the bishops, broke the fingers of the scribes, and stamped on the Patriarch. And the guard sent by a suborned grandee did not interfere, because the soldiers lacked elementary drive and consequently initiative.

Now let me try to analyze the situation. The Syrian peasants were dissatisfied with the Byzantine officials both before Nestorius' ascension to the patriarchal throne and during his reign in Constantinople, and after his exile. But their dissatisfaction had no connection with the Immaculate Conception and Nativity. But the population of Syria supported the views of Nestorius, apparently, because they were closer to them and understandable. But when students of the Ephesus divinity school and certain Ephesian hierarchs (opponents of the Monophysites) emigrated to Persian Mesopotamia, the popular movement in Syria died out. Those dissatisfied with the oppression of the Constantinople government remained, of course, but after the edict of the Emperor Zeno (Henoticon, the Reconciler) in A.D. 482, which compromised with the Monophysites, they united with the Egyptians, i.e. changed their ideological position by 180° so as to maintain their socio-political position.

The sincere supporters of Nestorius, who honoured him as a righteous man tormented in exile, founded a Christian university in Nisibis, spread Christianity as far as China, and were faithful subjects of the Shah of Iran, i.e. political opponents of Constantinople. But they remained Byzantines in their way of thought, mentality, and stereotype of behaviour. Byzantium thus overflowed its state frontiers like a boiling liquid splashes out of the vessel containing it.

After that there followed a duel between Constantinople and Alexandria, or between the Egyptian Church and the Greek Pa-

triarchate. Their strengths were almost equal. The position of the secular authorities, who were afraid of the growing influence of the Church, decided the problem.

In A.D. 451 a new council was held in Chalcedon, presided over by the Emperor Marcian. The Council of Chalcedon abrogated the decision of the Robber Council of Ephesus of 449. The Egyptians replied to this by a schism, did away with Greek in the divine service, and elected a special Coptic Patriarch. A second patriarchate was founded in Antioch by Jacobus Baradaeus; its followers were subsequently called Jacobites.

The attempt of the Emperor Heracleonas to put an end to the split by adopting a compromise decision only led to the rise of yet another current in the seventh century, which took shape as the sect of Maronites, who established themselves in the mountains of Lebanon. The Byzantine ethnos, united in the fourth century A.D., thus split up into four mutually hostile subethnoi. That led to factual separation of the Roman Patriarchate, and consequently of the whole West, emigration of the Nestorians to the East, and passage of the Monophysites under the authority of the Arab Caliphs. In the seventh century the Eastern Roman Empire was converted into a Greek kingdom.

Who won in the confessional disputes? Only the enemies of Orthodoxy and Byzantium. The Arian Langobards conquered the greater part of Italy; the Muslim Arabs conquered Syria, Egypt, Carthage, Armenia, and Georgia; the pagan Slavs ravaged the Balkan Peninsula and settled in it as far as the Peloponnese. Byzantium needed unity, but that proved unachievable. The drive of the urban population rose and compelled its bearers to manifest themselves by uniting in competing consortia. And those in turn grew into subethnoi, and after separation from the Empire into ethnoi. Sometimes the heretical communities were founded on ancient tribes that had held out against Hellenistic levelling, but more often they were consortia that arose in big towns, genetically heterogeneous, and united only by behavioural dominants and complementariness. In other words, this was an intensive process of ethnogenesis in which dogmas played the role of symbols for those involved in the events, and of indicators for historians.

Collapse of drive. In the seventh century A.D. it appeared that the attempt to resurrect the Roman Empire had failed. Justinian had overestimated the forces of his people and underestimated the strength of the eastern enemy. It is difficult to blame him for that. He supposed that the only serious opponent of Byzantium was Per-

sia. But that state had been weakened by the reforms of the Vizier Mazdak (A.D. 488-529), and the liquidation of their consequences, and also by the uprising of Bahram Cobin (590-591), which killed the best part of the regular army. The war of 604-628, however, was won by Byzantium with extreme efforts and thanks to the aid of Turkuts based in Khazaria.

Both Byzantium and Iran overstrained themselves in that war, so that the appearance of a new ethnos, the Muslim Arab, composed of relict tribes of the Arabian Peninsula, proved a tragedy for both the Persians and the Greeks. Iran was completely conquered and plucked clean. Byzantium lost Syria, Egypt, Carthage, and the Cili-cian plain, and only in A.D. 718 were the Arabs beaten at the walls of Constantinople, after which the war being waged on the territory of Asia Minor was converted into a series of plundering raids and counter-raids.

Byzantium also suffered losses in the Balkan Peninsula. Bulgarians, fleeing from the Khazars, crossed the Danube in 679 and occupied the country between the Danube and the Balkan Mountains. The Eastern Roman Empire had become a Greek kingdom which did not care a fig for half-wild Western Europe, which had been converted from a hub of world power into an object of plundering raids by Arabs from the south, Avars from the east, and Scandinavian Vikings from the north. The exhaustion of drive was even more disastrous than its rise.

But the forces of Byzantium were so great that after the loss of these lands whose population wanted to separate, the Constantinople government subdued the Slavonic tribes in the Balkan Peninsula (A.D. 689), and beat off the Arabs from the walls of the capital in 718. The warlike Isaurians took on the initiative in the war with the Muslims, but they, too, were very different from the Greeks. The ethno-cultural differences, weakly felt at a low level of drive, sharpened in the eighth century when the Byzantine ethnos entered a violent phase of collapse expressed in the iconoclasm of the Emperors of the Isaurian dynasty.

That was a time, perhaps, rather worse than the preceding phase of upsurge, when the mounting drive of the whole region dismantled the golden ring of the Empire's frontiers and threw Syria, Egypt, Africa, and Armenia into the arms of the Ommiad Caliphs, and Italy under the heel of Langobard kings. The division then arose naturally. The Arians, Monophysites, and Nestorians claimed that they were not such ignoramuses as the Orthodox because they understood the Holy Scriptures better. The Chalcedonites replied to them the same way, after which ethnic divergence set in, with

ethno-psychological motives of confessional declarations. But the quarrelers could be separated, which was the natural outcome, but with iconoclasm everything was unnatural, and therefore terrible.

The Orthodox emperor, victor over the impious Muslims and pagan Bulgars, in fact suddenly banned religious art on the pretext of the need to separate speculative philosophy and the emotional element of art, and even, using his official position, wanted to teach the monks, specialists in their affairs. But who supported him? The martinets and the grandee toadies of both secular and spiritual rank. Not like heresy, but loathsome.

I have deliberately left aside a historical analysis of iconoclasm in its political, economic, and ideological aspects. Much has been written about it, but not what is important for the ethnologist. The most profound thoughts of the emperors and patriarchs cannot explain why an Isaurian soldier cut down the image of the Mother of God with a sword, and why Greek women, risking their lives, stoned the soldier and beat him with sticks. Indeed, both the one and the other were illiterate both in theology and in politics, and they were not thinking of such complicated subjects at such a moment.

There is a simple and true explanation of the character of the events of that epoch. Iconoclasm was a phenomenon of Asia Minor, icon-worship was Hellenic. For the Asian icons were a decoration of the temple where one had to exalt one's spirit to the throne of Truth as an abstraction without a visible image. For the Greek icons were a window on the other life; in them were depicted an image and not a mask, and even not a face. Spiritual perfection therefore came through aesthetic perception. Truth was discovered in that way.

In Byzantium, in the eighth century, drive was at its acme, so that even unprincipled disagreements developed into pretexts for bloodshed, which did not do things any good. Italy, where the Langobards took Ravenna in A.D. 751, and a secular state of the Popes was founded in 756, fell away from Byzantium. And the Emperor Constantine V Copronymus, instead of re-establishing order in the lost region, avenged himself on the defenceless lovers of fine art at home.

The Seventh Council of Nicea in A.D. 787 gave temporary relief, but during the period of troubles the Bulgars succeeded in establishing themselves on the Danube. Only in Asia were indisputable successes achieved, and those only because matters were even worse in the Caliphate, which united the Arab-Muslim superethnos. Under the Abbasid dynasty the Caliphate broke up, the ethnic

principle, clothed in confessional form, being decisive, as in Byzantium. In its demoralization the Caliphate outdid Byzantium, which managed, in the next, inertial phase of ethnogenesis, to grow stronger politically and economically, thanks to which it outlived the Caliphate. Now let me draw a conclusion.

During the first three phases an ethnic system overcomes external effects, since it is elastic.

There is always a basis, in an ethnos, usually preponderant numerically, consisting of harmonious individuals whose drive and instinct are balanced. These are serious people. When the people with sub-drive among them begin to behave like scoundrels they resort to lynch law, or organize the deportation of people they do not like to colonies. They thus preserve the vital ethnic stereotype and tradition, the basis of people's signal heredity.

It is more complicated with people with drive. They are needed and can defend themselves. They therefore enjoy broad opportunities to kill both others and one another. But the very existence of people with drive in a system makes it plastic and capable of resisting external influences, because they know how to find a way out of the most complicated collisions. And when equilibrium is established among the three types of members of an ethnos, the system is almost invincible. But as soon as this equilibrium is disturbed, with a change of phase, it is easy to strike from outside into the gap forming between the phases. Then the ethnos may easily perish, through displacement.

Displacement

There is also a pattern in this. I have not described the actual aspect of global ethnogenesis but rather its ideal pattern, which is constantly disrupted in fact by influences external to a given ethnos. I have therefore had to take examples from world history, because no one lives alone, but only among neighbours, and any ethnos is constantly disturbed by neighbours, whether older and more experienced, or younger and more ardent. But an ideal curve was necessary in order to interpret the character of infringements of the process as such, because we usually, in fact, see zigzags that cancel each other out over long stretches of ethnic history. Now we know that the inertia of an impulse of drive is lost over 1 200 years in any variant, even the most favourable; and only fortunate ethnoi survive to their natural end. In history we see constant breaks of ethnogeneses at different ages, but here too there is a statistical pattern.

An ethnos that is in the first phases of ethnogenesis is practically ineradicable and unconquerable, because an expenditure of effort is needed to conquer it such that no success will recoup. But an ethnos that is changing phase of development is very vulnerable and may become the victim of a neighbour if the latter has enough drive. Let me therefore draw attention to the bends or kinks of an ethnos' curve of drive, the more so that they are always smooth, with diffuse edges. The curves also have their imperatives.

The transition from a stable state to an upsurge is marked by an imperative: 'It is necessary to reform the world because it is bad'. That is always more or less motivated, but the risk is great. A new-born ethnos that has not yet gathered strength may break against the strong resistance of neighbours that do not want to be put right. That happened with the Zulus in the nineteenth century when Chaka provided them with modernized assegais, trained the formations, and led them to victories. But Chaka had not taken the tactical progress of Europe into consideration. When muzzle-loaded smoothbore guns were replaced by Stutzen guns, the Boers defeated the Zulus in 1838 and founded the republic of Transvaal in the conquered land.

A little longer another Zulu kingdom, the Matabele, was holding out, which had broken away from Chaka in 1820. The commander of the army sent to conquer the south, Moselekatse, did not return but made himself king. In 1893 his son Lobengula was beaten by the English troops of Cecil Rhodes. The Zulus' drive was drowned in their own blood.

There are so many similar examples that it is more important to note the second danger for an ethnos that arises during the transition from the phase of upsurge to the acme. Then the subordination of the elements is disturbed; each wants 'to be himself', and for the sake of that smashes the created organization, sacrificing the interests of the ethnos to his own. In this case, as a rule, blood flows freely, but the culture does not suffer, but rather flourishes.

A clear example of this variant is the disintegration of the Arab Caliphate into emirates in the tenth century. The coincidence of the political collapse and the flowering of Muslim polyethnic culture, noted by all specialists, was obviously not accidental. Recognition of the value of the unique creative personality put scholars writing in Arabic in a special position. Sultans and emirs did not see rivals in them, but valued their works, granting them the right 'to be themselves' in the intellectual and aesthetic sphere. But such 'displacement' sometimes yields tragic results, as I shall show below.

The third bend is much more dangerous for an ethnos, viz., the transition from the acme to the inertial phase. The imperative 'We are tired of the great' arises, on the basis of which not only the superfluous die, but also needed people with drive, and sometimes even inoffensive cranks.

The Athenians, during the decline of drive, dealt with Socrates and Alcibiades. The death of Socrates covered them with a shame for centuries, which they could ignore, but the double exiling of Alcibiades ensured defeat in the Peloponnesian War, with the troubles that stemmed from that. The deplorable examples did not reform the Athenian demos. After it had 'shaken off' Plato and Aristotle, and a number of other active fellow-citizens, who were deprived of their property by a vote (the merchant who supplied Athens with Scythian grain was ordered to pay for a theatrical performance or to build a shrine), Athens lost her independence. Alexander the Great spared the beautiful city, but the next conquerors, the Romans, behaved toward the Athenians according to the customs of their time: some were killed, and the rest sold into slavery.

The antique Graeco-Latin superethnos experienced the inertial phase in the first and second centuries B.C. At that time Hellenic people of drive could only serve the Republic, either as soldiers or as teachers of literature, without hope of improving their position in life. But even for the Romans it was not easy in the flexure of the first century A.D. Ovid died in exile, and Horace and Virgil were court toadies and bootlickers. Seneca perished from the envy of Nero; and the number of ordinary, but talented people who drew attention to themselves and therefore perished is incalculable. The character and direction of these reprisals against defenceless, innocent fellow-countrymen were vividly described by Suetonius in his *De vita Caesarum* (Lives of the Twelve Caesars) and by Gaston Boissier in his *L'Opposition sous les Césars* (The Opposition of the Times of the Roman Caesars).

The system of murders of the best, not by nobility and wealth but by personal qualities, was a sign of the times, and normal fading of the process of ethnogenesis. Precisely the same symptoms, obviously of the same sickness, are to be seen in Byzantium under the Ducas dynasty (eleventh century) and in Iran of the end of the Mongol period (fourteenth century), and in Central Asia after the Timurids (sixteenth century). So this is a disease of aging. Having said that, let us return to Rome.

The depletion and decline of drive. When the East of the former empire was seething, the West was steadily cooling. At the beginning

of the fifth century A.D. the frontier on the Rhine and Danube was broken. In 402 the Visigoths burst into Italy but were defeated at Verona. In 405 a horde of Suevi, Burgundians, Vandals, and Alans invaded Italy, but were defeated at Florence in 406 and withdrew. That showed the way into Gaul, where the Franks and Alemanni had already conquered the banks of the Rhine. They broke the Vandals, but saved themselves and not Gaul, which was laid waste. The Gauls did not defend themselves, but only prayed. Who could imagine that these were the descendants of the heroic Celts. The same happened in Spain, where the Suevi decided to settle in Galicia, the Alans in Lusitania, and the Vandals in Baetica, which has been called Andalusia since then. In 410 the Goths took Rome, pillaged it, sparing only the churches, and in 412 occupied southern Gaul, in 419 drove the Vandals from Spain into Africa, and received Aquitaine as a gift for that. The Burgundians settled on the left bank of the Rhone, and the Alemanni on the left bank of the Rhine. In 430-439 the Vandals, driven from Spain by the Visigoths, occupied Africa, where they were supported by the Moors and Numidians, and in 455 seized Rome and subjected it to senseless destruction. In 449 Angles, Saxons, and Jutes appeared in Britannia, from which the Romans had withdrawn the legions. The British Celts proved no better than the Gallic ones, and let themselves be broken.

In 476 the Heruli, who were in the Roman service, took power into their own hands and suppressed the Western Empire. Ten years later the last islet of civilization, Soissons, was wiped out, conquered by the savage Franks. The Burgundians settled in the valley of the Rhone.

In 489 the Ostrogoths left the banks of the Danube and Lake Balaton, moved into Italy, and in 493 broke the Germans who defended it. All these Germans were subject to the effect of an impulse of drive of the second century and were consequently in the upgrade phase.

But what is remarkable is that in the Western and Eastern Empires there was the same social structure, same religion, and same enemy, the barbarians, who were pressing with equal force. But the East repelled the attacks, while the West fell, because it was in the phase of obscurity. That is what renewal of the ethnos due to the arising drive of the population yielded, and that is why newcomers from the East (the Vandal Stilicho and the half-German Aetius) defended Rome. People of that mentality were not known in the West, but in the East they were famous, from Belisarius to Alexius Murzuphlus and John Cantacuzene.

That short reminder was necessary in order to explain how terrible the loss of drive is; without it it is impossible even to defend oneself successfully. For the barbarians were very few; the Vandals, for example, were only 80 000, 16 000 of them warriors. But they reduced Rome to ashes. The lands conquered by the Germans were long considered a heavy loss.

In the sixth century Justinian adopted a policy of resurrecting the Roman Empire. He succeeded in wiping out the Vandal and Ostrogoth kingdoms and wore down the Visigoths in Spain, but there was not enough money, people, or ideas for the conquest of Constantinople—what with the struggle with the Goths, when the Slavs and Persians were pressing at home, and in place of the Goths had arrived the Langobards, behind whom there were the even more ferocious Franks. Preaching worked better on the Franks than weapons, but for intellectual pressure a clear awareness of aim, and internal unity, ensuring mutual aid of the missionaries, were extremely necessary. But there never was that in Byzantium, even having got rid of the Gnostics and Neoplatonists.

The Langobards' invasion of Italy, won back by Byzantine generals from the Ostrogoths, occurred in A.D. 568. But the Langobards seized only part of Italy. So a frontier was established between Byzantium and the lost lands where Germanic kingdoms were located, and where Roman citizens were converted into defeated peoples and oppressed classes.

The great migration of peoples is thus explainable as a consequence of the drive which ruined the Dacians and Jews, having compelled them to hurl themselves on Rome too soon, when it still had its own forces, and which ensured victory of the Christian communities that created Byzantium. In the East the potentials of the impulses of force were equal, and conquests therefore were not made. But in the West, where the difference in the potentials was considerable, Goths, Vandals, Burgundians, Suevi, Alans, Langobards, and Franks flowed, spontaneously as it were, into the civilized regions. They were not numerous but had drive, i.e. each one of them thought not only about his own skin, but also about his tribe, family, leader, fame, and future. But having conquered the beautiful coasts of the Mediterranean, the inhabitants of the Baltic forests and the Black Sea steppes proved unadapted to the new conditions. They themselves did not know how to farm but, being the victors, they took all the very best. But even that was not feasible without involvement of the aborigines. The barbarian kingdoms of the fifth and sixth centuries were therefore converted into chimeric entities, rapacious but unstable. In the seventh century the

Arabs subjected Africa and Spain to themselves, meeting resistance only from the hillmen of the Atlas and Asturias, i.e. where the ancient landscape had been least influenced by Roman civilization. Ancient ethnai, Berbers and Basques, had survived there, living in tune with nature. The nature of their land had thus protected them.

The descendants of the Roman colonists, who had cut down the forests to build luxurious villas and temples, and who carried on commercial sheep-farming on the devastated expanses of Spain, and who trampled the thin humus layer by government herds in the southern foothills of the Atlas Mountains, unrestored to this day, proved defenceless, however, in face of fierce conquerors — northerners (Scandinavians), easterners (Avars), and southerners (Arabo-Berber Muslims).

These unfortunate peoples no longer expected help from the East. The Greeks and the Wallachians (people who spoke Latin, also known as Vlachs) had ceased to look upon each other as fellow-countrymen. Historical fate or 'force of circumstances' had taken them along different roads.

Reciprocity. For a long time the victors (Teutons) and the conquered (Wallachians) coexisted without merging, hating and despising each other. Western Europe was transformed from a super-ethnos into a zone of ethnic contacts with all the negative consequences of that. All the barbarian kingdoms that arose on the conquered lands broke up with staggering rapidity, carrying away with them the culture of Rome and the courage of the old Germans, which was converted by the seventh century into ferocity and cruelty.³³ With ethnic cross-breeding the processes of destruction were equally accelerated for both conquerors and conquered.

In that same eighth century, when Byzantium was experiencing the violent internal change expressed in iconoclasm, and in Asia superethnai were flourishing and expanding that had arisen in the seventh century — the Arab-Muslim, Tabghatch (mediaeval China), Turkic-Tibetan (they can be united by attributes of genesis and territory), Western Europe was experiencing a profound decline. It had become the object of expansion. The Arabs had reached the Loire, the Avars were raiding to the Rhine, Slavs had occupied the right bank of the Elbe, and even forced its lower reaches. The economic system inherited from Rome had completely broken down, and as a consequence virgin forest was restored in France,³⁴ which indicates an exceptional lowering of drive, since the most conservative class, the peasantry, lowered the intensity of land-working to the minimum that enabled them simply not to die of

hunger. The kings of the Merovingian dynasty, even then, were given the nickname of 'lazy', but their nobles vied with each other in wild licentiousness and unruliness, and neglect of traditions of fidelity and duty. The damage from the mixing of two superethnoi was reciprocal.

The policy of the first Carolingians (Pepin the Tall, Charles Martel, and Pepin the Short) who held the attack of the Arabs and entered into an alliance with the Pope of Rome, was a certain attempt to introduce order. The result of their efforts was the empire of Charlemagne, which broke up already under his grandsons. Everything in that empire was imported. The ideology was taken from Byzantium, education from Ireland, military technique (knightly cavalry) was borrowed from the Avars, medicine from the Spanish Arabs and Jews. Taken all together this is called the 'Carolingian renaissance'.

The empire of the Carolingians is treated as a French dynasty in traditional historiography, the counting of the kings beginning with Charlemagne. Thierry proposed a better founded conception, pointing out that the Carolingians exercised their dominion on the territory of modern France by brute force. Brittany, Aquitaine, Provence, and Burgundy only recognized their authority because they could not defend their own independence. The Eastern Franks, on the contrary, the ancestors of the Franconians, were inseparably united with the Carolingians. This dynasty, and the ethnos of the Franks supporting it, should thus be classed in the Germanic superethnos of the great migration of peoples. Which it was; and from that angle the Franks' military successes are readily explicable.

On the general background of the diminishing drive of the Germanic settlers mixing with the descendants of the Gallo-Romans, the handful of nobles gathered around Charles Martel, Pepin the Short, and Charlemagne were strong because their opponents were weaker. The Carolingians crushed the independence of Provence (A.D. 737-739), Aquitaine (760-768), Lombardy (774), Bavaria (788), and the Saxon tribes (797), took Barcelona from the Arabs (801), and defeated the Avars (802-803). But with the exception of the last two, these were victories over their own—'Germans beat Germans'. And under the heirs of Charlemagne even these successes were reduced to nought. The valleys of the Danube and Elbe were conquered by Slavs, the 'Spanish Mark' separated off from the Empire and the latter broke up into its constituent parts.

It is thus justified to treat Charlemagne's Empire not as the beginning of a European mediaeval superethnos, but as the end of the inertia of the great migration of peoples.

Growth of a system as a rule creates an inertia of development, which is slowly lost through the resistance of the environment, as a consequence of which the descending branch of the curve of ethnogenesis is longer than the ascending one. Even when the vitality of an ethnos falls below the optimum, the social institutions continue to exist, sometimes outliving the ethnos that created them. Thus Roman law survived in Western Europe although ancient Rome and proud Byzantium became memories.

The socio-economic periodization—the beginning of the formation of feudalism—by no means coincides with the ethnological periodization. Early feudal states rose on the territory of Gaul in the fifth and sixth centuries A.D. under conquerors (Merovingians, Burgundians, and Bretons), who divided up this rich country. That means that the beginning of French ethnogenesis is separated from the beginning of the feudal formation by four centuries, and consequently that these processes are not linked together functionally.

Furthermore, the feudalism rising on this land was typologically different. Five types of feudalism correspond to the five ethnic regions that arose there because of the invasions of the barbarians. The Franks established a harmonic mixture of barbarian and antique elements in the valleys of the Seine and Marne; the Burgundians, former allies of Rome, confiscated one-third of the serfs, half of the villas, and two-thirds of the arable land from the local inhabitants, and being Arians did not mix with the aborigines for a long time; Provence, where Visigoths, Ostrogoths, and Arabs succeeded one another, preserved so many traditions of the antique cities that it resembles Byzantium and not the Western world; Aquitaine, again, where the Visigoths dominated for less than a hundred years (A.D. 418 to 507) differed markedly from neighbouring Provence and from the land of the Franks. Brittany, i.e. ancient Armorica, has a special place. It was conquered from the Romans in the middle of the fifth century by Bretons, and defended by them against the Frank expansion right up to 845, after which an independent Breton kingdom was founded, and a separate archbishopric of Dol.

So the contours of the processes of ethnogenesis peep through the tissue of social development.

Anomalies. Here I come to an exciting problem, viz., the relation between culture as an ideological and technical entity and ethnos as a phenomenon of the biosphere. The early Christian culture, a quite definite concept in the period under consideration, i.e. the fourth to eighth centuries A.D., embraced not only the whole terri-

tory of the former Roman Empire, but also neighbouring lands (Armenia, parts of Arabia, Abyssinia, Germany) and the emerald isle Erin. The fate of the last-named is particularly noteworthy. The Celts received the Christian tradition in A.D. 432-461 from Syria and Egypt, and not from Rome (about which I have already spoken above). The poor mendicant monks created a new Thebaid on the Emerald Isle, with the sole difference that they sheltered in reed huts instead of caves. With them a vapid, splendid church hierarchy did not arise, but the monks' influence on the people was immense. Nothing linked them with Rome. Even the celebration of Easter did not follow the Julian calendar but coincided with a definite date of spring. Until the end of the eleventh century Irish monks were the most cultured Christians in Western Europe and defended their independence from the Roman Popes just as steadfastly as their flocks from the Saxon and Norman kings of England.

Consequently, when examining the collision through the aspect of the history of culture, we should count the Celts as an Early Christian, i.e. Byzantine, entity, as one of its variants. The 'Carolingian renaissance' and Visigoth Spain, too, should be classed as such. That would be a logical and consistent solution of the problem. But every historian sees that it is not sufficient and is therefore unsatisfactory. And how could it be otherwise if we did not take into account that the bearers of this culture (as of any other) were people, and there is no person on Earth without an *ethnos* and no *ethnos* without a homeland, by which must be understood an original and unique combination of terrain and geobiocoenosis.

I have already remarked that the drive impulse embraced only the belt of Eastern Europe and the Near East from Sweden to Palestine. The Celts were consequently outside it; seemingly therefore the Britti, abandoned by the Romans in 406-407, lost the wars with the Picts and the Anglo-Saxons, who slaughtered all the male Celts. Only the western regions of Britannia held out for a long time against the fierce enemy. The Celts often passed to the counter-attack, won minor victories and even migrated to the Continent, turning Romanized Armorica into Celtic Brittany independent of the Frankish kings and hostile to them.

Another Celtic tribe, the Scotti, had already in Roman times crossed from Ireland to the north of Britannia and spread terror among the Britons subject to Rome by frequent raids. They continued this struggle with the Anglo-Saxons and Normans down to the tenth century. In short the Celts seem to have acquired sudden force. But was it simply that? Let us look.

Wales, Cornwall, and especially Ireland were minimally sunk in Roman culture. They had preserved their own tribal traditions, and the relatively small reserve of drive left them from the epoch of the conquests. That reserve was too small for Gaul and Britannia to be able to successfully resist Roman and Germanic expansion, but when these lost their own drive, the Celts evened the balance of forces, the culture they had borrowed from Byzantium neither strengthening nor weakening their impulse. But it helped them define the ethno-psychological dominant, active, though negative: 'We are not Germans, and we don't want to be like them'. Such a counterposing proved sufficient for Wales (Cymru) to resist the English until 1283, and for Ireland much longer, in spite of complete loss of traditions of Byzantine culture.

The explanation I propose is tentative. It is possible that, at the beginning of our era, there was a special impulse of drive on the coasts of the Atlantic Ocean that passed south from Erin, across Vasconia, the Atlas, and the Sahara, to the Gulf of Guinea. In that case the outbursts of activity of the Tuaregs (Almoravids), Berbers (Almohads), and the beginning of the spread of the Bantu are explicable. But this proposition needs detailed checking and is suggested here as a working hypothesis.

The waning of youth. The fact that the young peoples of Europe conquered dilapidated Rome which infected them with its defects and brought them low, is not surprising. But when an ethnos that has reached the acme phase perishes from the hands of a weak opponent, it is strange. Any transition from phase to phase obviously entails a danger for the ethnos. Just as a snake is defenceless when shedding its skin, so an ethnos is powerless when it is changing its spirit, i.e. the stereotype of behaviour and social imperative.

There is a very common opinion that the Spanish conquistadores discovered an ancient civilization in Central and South Americas and made short work of it. And all who love Indians, and they include the author of these lines, bewail the Aztecs and the Incas, as the best representatives of their race and bearers of an age-old culture.

Fortunately, it has been possible in recent times to establish certain landmarks of American ethnogenesis. It has turned out that the ancient cultures of the Indians of Mexico and Peru became extinct not very long ago, but radically. The Olmecs, who lived on the coast of the Gulf of Mexico, disappeared in the sixth century A.D., giving way to the arriving Totonacs. The Toltecs, creators of the culture of Anáhuac, founded their state around A.D. 720, but what

was before it? In Peru the ancient archaeological cultures of the Mochica and Tiahuanaco—the pre-Inca culture of the Aymara ethnoses—disappeared in the eighth to tenth centuries A.D. The ethnic formations disappeared along with the archaeological, because wars were waged to the extermination of the enemy in America. The Incas were an exception, but they did not yet exist. The ancient American ethnoses related to the Incas and the Aztecs as the Romans related to the French and Spaniards, who inherited part of the traditions of linguistic culture from the Romans, part of the gene fund, the ruins of cities, and scraps of knowledge. But they were not Romans. Like them the Incas and Aztecs became new ethnoses after their migration.

But in the ninth and tenth centuries A.D. the French, Provençals, Spaniards (in Asturias), Germans, Lombards, and Piedmontese had already formed into ethnoses of a new type; but in America the ‘great migration of peoples’ started later.

Only in the twelfth century, if we believe the legends, did the mythical first Incas (Manco Capac and Mama Oclay) appear, and then, too, around 1168 the ancestors of the Aztecs crossed the Rio Grande and moved south with a number of other tribes. In the twelfth century the Chichimecs (literally ‘savages’) conquered the remnants of the Toltecs, whose cultural tradition was broken, like the Roman in Gaul and Spain. Only in the fourteenth century did the Aztecs found Tenochtitlán (1325) and take up the remnants of the Toltecs’ culture. In the same fourteenth century the Inca Viracocha founded the empire that the Spaniards conquered, but the historicity of Viracocha is doubtful. Only in 1437 did Pachacuti Inca defeat the Chanka, worthy enemies of the Incas, execute their ruler, and force the remnants of this ethnoses to flee to certain death in the Amazon.³⁵ Later he seized the throne, executed the scholars who knew the history of the Incas, banned the study of writing, and introduced policing of morals, by which he established the civilization of the Incas. But by their place in ethnogenesis or by the age of the ethnoses Viracocha was equivalent to Charlemagne and Pachacuti to St. Louis and Lothar who gave semi-savage Europe the possibility of the ‘Carolingian renaissance’, education, and creative thought.

Pachacuti’s successor Topa Inca conquered the Chimu state (modern Ecuador) in 1476 and established a regime of brutal exploitation of the local Indians, forcing them to cultivate the state fields, and in winter to build roads in the Andes. There seems to be no doubt that anyone who sympathizes with the Indians should hate the Incas; it is only logical.

In the same fifteenth century when the epoch of the 'Renaissance' set in in Italy, the Aztec king Itzcoatl (1428-1440) and his counsellor the thinker Tlacateotl revived the culture of the Toltecs. Itzcoatl and his successor Montezuma I (1440-1468) conquered Anáhuac (Southern Mexico) and Tlacateotl introduced the 'cult of flowers', i.e. human sacrifices in order to save Earth from a future catastrophe. That was murder for the sake of murder, evil in pure form.

The local population defended itself as best it could. The Huastecs and Tarascas defeated the Aztecs who were trying to capture youths from them for sacrifices. The Araucans repulsed the army of the Incas that was trying to impose the Inca civilization on them. Atahualpa, the semi-legitimate son of Topa Inca (by an Indian concubine) was used by the chiefs of tribes living around Quito (Ecuador) against the legitimate heir Huascar Inca. In 1527 the rebels won and killed all the Incas they took prisoner. The women and children were tortured especially cruelly. Few of the Incas survived. It was at that tragic moment that the Spaniards arrived. In 1532 Pizarro took Atahualpa prisoner, robbed the temples of their wealth, falsely claimed ransom, and executed the prisoner. And no one moved a finger.

But who would have stood up for him? For the Incas he was a tyrant and traitor, for the Indians a scion of the Inca oppressors. When the last great Inca, Manco Capac, called the Indians to a liberating war, only a few followed him, to defeat whom a few hundred Spaniards of Almagro's company were sufficient (1535).

The empire of the Muisca (or Chibcha) in modern Colombia was overthrown with the same ease. That was the 'El Dorado' itself that the greedy, imaginative conquistadores were looking for. Success fell to the lot of Gonzalo Quesada in 1536, to whom the Muisca put up a very weak resistance. They, it turns out, were also a relatively new ethnos, since the ancient cultures of the northern Andes had disappeared only at the beginning of the second millennium A.D. Tribes invading from the north had exterminated the aborigines. The victor Spaniards found such humiliation of the lower orders by the high-ups as they themselves imitate even a half of it. An Indian, for example, who was considered of high rank among the Muisca, was thrown into an underground lake where poisonous snakes swam in utter darkness. The unfortunate man swam there until he bumped into a snake and died from its bite. And appellants were only allowed to talk to the authorities when sitting with their backs turned and their faces buried in their

bended knees. It will readily be realized why the Indians did not take to defending their rulers.

And the southern Araucans (Manuche) exhibited such courage that the Conquistador Pedro de Valdivia fell in 1553 and his whole company perished. In 1598 the Araucans drove the Spaniards back across the Bio-bio, and in 1744 Spain recognized Araucania as an independent country and received its ambassador in Santiago de Chile. But the Araucans were not a 'civilized' people. They preserved their ancient traditions. That means that the impulse of drive of the thirteenth century, and the great migration of the peoples of America of the thirteenth century, did not affect them. Because in the early phases of ethnogenesis an ethnos is as weak as in the end ones.

In the same way Cortez, who had 1 000 Spaniards, defeated 30 000 brave Aztecs, because the Totonacs and Chichimecs from Tlaxcala mustered 50 000 warriors to crush the hegemony of the Aztecs. These Indians deliberately preferred the Spaniards, whom they saw as a tribe equal to themselves, to the Aztecs. Perhaps they miscalculated; for the Inquisition, which the Spaniards took to America, was an institution about which no good can be said. But one might not come before its court, because, in its idea, the Inquisition was created for defence and not for attack.

I shall explain. In 1529 the Turks captured Algeria. The coastline of Spain was open to landings by Muslims, and within the country there were many Moriscos and Jews who dreamed precisely of such a development of events. The Spanish government, justifiably doubting the loyalty of the heterodox, prohibited them from holding military and civil posts, but it could not forbid their being baptized. Since a baptized Moor or a Jew received the right to make a career on equal terms with a Spaniard, many accepted baptism hypocritically, and continued to observe the rites of their old faith. It was these that the Inquisition exposed and punished for apostasy. Which meant that in order not to have trouble with a tribunal, one could simply not adopt Catholicism.

In America the Inquisition strictly punished for making human sacrifices, especially for the killing of children. That, of course, violated the conscience of the Indians, but who then would protect their children? An Indian who refrained from making sacrifices need not worry for his own life. But it was far more difficult to keep himself safe from the Aztecs. They dragged any prisoner who turned up to the altar, irrespective of what he did at home. And if he was wise, brave, and handsome, the greater was his chance of

coming under the obsidian knife. That is why the Spaniards took firm root in America for 300 years.

When we examine the history of Europe and America in the proposed diachronic aspect, we see that in America there was its own kind of 'great migration' and 'death of antique culture', but the impulse of drive that caused a new explosion of ethnogenesis occurred 500 years later, in the thirteenth century. The Aztecs and Incas, in creating their empires, were the same foreign conquerors for the local population as the Anglo-Saxons were for the Celts, and the Franks for the Gallo-Romans. Consequently, at the beginning of the sixteenth century the Aztecs and Incas were at the age at which the French, Spaniards and Italians were in the tenth century. But that was the epoch of the disintegration of the European culture inherited from Rome, and of a lowering of resistance to external blows! The Hungarians, Berbers, and Scandinavians pillaged the Carolingian Empire and the Anglo-Saxon kingdoms as effectively as the Spaniards and Portuguese robbed their future colonies in the sixteenth century. In short, the Aztecs and Incas were invaded at a turning point in their growth, during the transition from the phase of becoming to the acme of development, which did not set in because of interference from outside.

But as soon as the Spaniards ran into tribes that were in stable phases, they were beaten and passed to the defensive. Furthermore, the Comanches in the eighteenth century began to drive the Spaniards back over the Rio Grande, and the Seminoles conquered Florida, already settled by the Spaniards. In Mexico and the country of the Andes, inter-breeding of Spaniards and Indians was so intensive, with a great drive in both components, that new ethnoid arose, which won independence in 1810-1822. In place of 'New Spain' there arose an 'Anti-Spain', which carried out the conquest of the Indian ethnoid of Yucatan, Chile, Patagonia, and Tierra del Fuego, which had been beyond the power of the conquistadores. The interrupted process was renewed, but only where it had been before the sixteenth century. In North America a zone of contact of ethnoid coming from Europe and Africa was created in place of the Indian superethnoid.

North America was populated by relatively old ethnoid that had returned to a state of homeostasis. Exceptions were the Iroquois, who had penetrated the region of the Great Lakes from the west not long before the coming of Europeans, and the Athabascans in the foothills of the Cordilleras. Only they were the fruit of an outburst of ethnogenesis and participants in the 'great migration of peoples' in America. Around the twelfth century some of the Atha-

bascans drove the Eskimos into the tundra, while another part spread to the south, into Arizona. But they did not succeed in creating a powerful state in the south because the expanses of the prairies were inaccessible to hunters on foot. The Athabascans, like their eastern neighbours the Comanches, huddled along the banks of river valleys where there was little food, as a consequence of which the population stopped growing. But as soon as the Spaniards' horses, escaping to the prairies and becoming wild, became herds of mustangs, the prairie Indians mastered horsemanship. The names of the Navajos and Apaches became famous throughout the world.

But that was late. Squatters, trappers, and cowboys, descendants of the colonists who had succeeded in adapting themselves to the New World, surpassed the Indians in number and technique. That is another example of interrupted ethnogenesis. But, in contrast to the southern variant, the process was not renewed here. Mixed marriages did not shock the Spaniards, but the Anglo-Saxons, especially the women, boycotted the 'squaw men' and ostracized them, while their husbands were guided by the rule that 'a good Indian is a dead Indian'. The tragedy of the northern Indians ended in the wars of the 1870s, which became known as the 'Indian wars'. After that the Indian ethnoi in the U.S.A. remained relicts.

Recovered youth. Spain possessed colonies in South America and Mexico unhindered while she seemed invincible to the colonists. But when Napoleon arrested the Spanish royal family in Bayonne in 1808, and put his brother Joseph on the throne in Madrid, and began a war against the Spaniards who defended the traditions and independence of the fatherland, the colonies stood aside. From 1810 to 1821-1822 Spain tried to pacify the insurgents, but without success. Only some Indian tribes supported the colonial regime, and that only because they hated the insurgent Creoles more than the remote Spaniards. Let me draw attention to Mexico, because the revival of the process altered by the conquest proceeded most visibly there.

In the sixteenth century the Spaniards and Indians rapidly mixed, and it seemed that a local variant of the Spanish ethnos was arising in Mexico, but the opposite happened. By the end of the eighteenth century four ethnic groups had been formed instead of two, hating each other. It is suggested that this division was the result of unsuccessful administration, but the causes seemingly lay deeper; contact occurred at superethnic level, with all the consequences stemming from that.

The top social stratum, which concentrated all important posts and trade in its hands, consisted of natives of Spain, who were called 'Gachupins' (men with spurs). Their numbers were fairly small, and the attitude to them was negative. But the Gachupins had control of the army and the clergy, which guaranteed their privileges quite effectively.

One social step lower there were the Creoles (around a million persons), natives of Mexico, descendants of the conquistadores, often with an admixture of Indian blood. They were wealthy owners of haciendas on which Indians worked. The Creoles lived in luxurious idleness, remaining loyal to the king and Church and hating the Gachupin bureaucrats.

But at the beginning of the nineteenth century individuals with drive appeared among the Creoles who were seeking to apply their energies. These people began to read French literature and adopted an aim in life that led many of them to a cruel death.

Three or four million Indians either worked on the haciendas as peons or in the mines, or lived in their villages under the rule of caciques (chiefs). In the sixteenth century their position had improved because the demands of the Spanish officials did not exceed those of the Aztecs, and there was no need to sacrifice children to Huitzilopochtli (the god of war). But in the seventeenth and eighteenth centuries the Creole landowners began to encroach on the lands of the Indian tribes, and the corrupt Gachupin officials defended them poorly. The monks converted many Indians to Catholicism, but so weakly that the Indians retained their own customs and their idols. But Indian children often showed greater capacity in school than the Spaniards, and so it happened that descendants of the Aztecs became teachers, who taught the descendants of the conquistadores Latin and Catholic theology.

But the two million metises who had originated from mixed marriages in the sixteenth century lived worst of all. The Creoles pushed them out of their circle, and the Gachupins forbade them to live among the Indians so that they would not incite the latter to rebellion. Only hard labour or robbery were accessible to the metises, but a special police was organized against them, that killed them without trial. Yet the number of metises, like their drive, rose, because they had a mixture of the genes of the conquistadores and the Aztecs. They therefore did not die out, but became established as a special subethnic group with possibilities of development.

Thus, at the beginning of the nineteenth century Mexico returned to the phase of upsurge that had been cut short earlier by Cortez.

In 1808 all these ethnic groups began to fight both against the Gachupins and among themselves, because they hated each other. They were of one mind in one thing only: they called themselves *Americanos*; in other respects, however, there was no agreement among them. The first uprisings of the Indians, in 1810-1817, led by the priests Hidalgo and Morelos, were therefore defeated by the regular army, in which the officers were Creoles and the soldiers metises and mulattos. But already in 1821, Colonel Iturbide, a Creole with a touch of the Indian, went over to the side of the advocates of independence, and withdrew Spanish troops from Mexico. The Gachupins left the stage, but their place was taken by Mexican conservatives, of which Iturbide was one.

The subsequent distribution of forces was as follows. The conservatives banked on the clergy and army; these were mainly Creoles and descendants of Spaniards. The moderate liberals—Creoles—wanted a liberal parliamentary republic and retention of their estates; the extreme liberals—metises—were enemies of the Church and the Army; the Indians wanted the whites to go away and leave them in peace. Civil wars and revolutions continued until 1920, and ended in victory of the metises, who adopted the social institutions of the Indians—caciquism. The Indians could not win as an *ethnos* because they did not represent an integral entity. As a matter of fact, each tribe was a separate *ethnos*. Therefore the Indians with drive, like Benito Juarez, for example, by birth and upbringing a Sapotek, having received an education came close to the metises—the extreme liberals—and defeated the French regular soldiers.

American diplomats made fun of Mexico, saying it could not sort its affairs out. But in the acme phase their English forefathers had also fought the Wars of the Roses. Mexico was simply passing through this phase with a lag of three centuries.

An overheating of drive usually makes many valuable memorials of art and elements of culture non-existent. Mexico was no exception. Magnificent temples with beautiful sculptures perished during the pronunciamiento, which took place with a cruelty surpassing the European Middle Ages. The metises were enemies of everything European, including Catholicism. The Indians were pious; they needed the churches but not the clergy. They went to the churches for their festivals, decorating the statues of saints with garlands of flowers, like the old idols, and danced before them as before the gods. The Creoles took up the defence of the clergy, forming squads of 'Cristeros'. The rebellion was brutally suppressed, the innocent peasants suffering most.

Thus elements of material culture—the use of iron and changes in the flora and fauna (horses, cows, sheep, pigs, grapes, olives), remained as traces of the conquest of Mexico by Spain. But the direction of ethnogenesis returned to its own bed. It is more correct to see the three centuries of Spanish rule as a zigzag on the curve of ethnogenesis. I shall not be able to judge what happened later since the acme phase of the ethnogenesis of Latin America has still not ended, and one can only make a forecast when the general pattern of events becomes clear.

The Beginning of the Decline of Drive

Calamity from excess. We have already seen from the example of Byzantium that a rise in the drive of an ethnic system is far from always in its favour. For the Arab superethnos it proved tragic because the regions included in the Caliphate that had received a charge of drive from the Arab conquerors began to slip away from Baghdad. Sometimes these revolts were suppressed with a vast expenditure of military forces, like the defeat of Mukanna, for example, in Central Asia in A.D. 762, but more often they were successful. In 789 Morocco broke away, in 820 Khorasan, in 867 Seistan. Two years later there was the ghastly uprising of the Zindji (Zanzibar) slaves, which was led by an Arab. In 872 ibn Tulun proclaimed himself the independent ruler of Egypt; in 877 the Kar-mathians took the offensive in Bahrein, and in 903-909 the Fatimids in Tunis. Drive broke the shackles of the political system and in half-a-century converted a well-ordered, law-obeying state, with a thriving economy and developing culture, into a kaleidoscope of warring ethnoi, or of consortia striving to form themselves into ethnoi.

Blood flowed so profusely that the Arabs lost hegemony in their own country. In Africa the initiative passed to the Berbers and Tuaregs, in Iran to the Dailamites, a hill tribe that until then had kept aside from politics; in Central Asia the Tajiks gave way after a long struggle to Turks and Turkomans. The immense forces of the Muslim superethnos were burned out within its own system. The process of ethnogenesis initiated by the Arabs wiped out the ethnos that generated it, but left behind an inviolable unique culture and a tradition associated with it to which neighbouring ethnoi were attracted for a long time.

The process went rather differently in the Romano-German world. There it was less intensive, which was all to the good of the

Europeans, although the features of the acme phase in Western Europe were expressed with maximum clarity.

Train of golden ages. When we examine the subsequent history of the West-European or Romano-German superethnos, it is readily noted that different ethnoi took the lead in it by turns, giving way to one another. This leadership was differently expressed, but when it is examined as a function of the drive of ethnoi comprising the superethnos the variety of forms ceases to puzzle the investigator.

The Germans took first place after the break-up of the Carolingian Empire. Their kings Henry the Fowler and Otto the Great held the Hungarian raids, which ensured economic growth of Germany on both banks of the Rhine. The frontiers of the domain were the Elbe and the Rhone; and in Italy they inherited the iron crown of the Langobards. Otto II tried to conquer Byzantine Southern Italy but did not succeed. Later the French Normans followed up his initiative, but they, too, became the victims of the Germans in 1194.

During that time dynasties succeeded one another in Germany, the Saxon, Franconian, and Swabian (Hohenstaufen), and in the thirteenth century the Germans began to lose their position. The French took Languedoc from the German Empire and part of Lorraine, while the Italians were able in general to separate themselves from the 'animal race'. Politically this was a war of the emperors with the Popes; socially it was a struggle of the feudal barons with the towns; historically and culturally it was a rivalry of lawyers and prelates; and ethnically it was the loss of reserves of drive by the leading tribe of the Germans, the Swabians, and a peeling off of outliers associated with that.

In the fourteenth and fifteenth centuries the Italians were the leading ethnos of Catholic Europe. Profiting from the Crusades, the pillaging of Byzantium, the trade with the East, and money-lending, they simultaneously supplied all the kings of Europe with lawyers, diplomats, theologians, poets, artists, builders, and navigators. The Venetians, no less flexible and unscrupulous than the Florentines, the venal Romans, the cunning Bolognese, the hypocritical Sieneese, and the cut-throat Calabrians, successfully competed with the Florentines, but the right to first place on the road to Hell, according to Dante, belonged to the Genoese, who had insinuated themselves not only into the Golden Horde, but also into Rus for the sake of their trade deals; but, true, they failed in that.

During the flourishing of the city republics of Italy, the other countries of Europe suffered hard times.

England and France were at each other's throats, the English being supported by the Gascons, and the French by the Scots. That war lasted a hundred years, tied up the forces of both countries and bled them white. And even after it, as the English left 'la belle France' (except for Calais), they switched the points of their indefatigable passions against each other and began the Wars of the Roses. These barons were so used to fighting and were so incapable of doing anything else that 'Old England' knew no peace.

And then the hitherto little countries, the Czech Hussites and Swiss mountaineers, bled Germany, Austria, and Burgundy. In short, almost all the forces of Western Europe were closed on themselves and destroying each other. Overheated drive made the 'Christian world' powerless, which very favourably influenced the strengthening of Turkey and Russia, i.e. countries that had begun their ascent in the fourteenth century and were consequently young in relation to Europe.

A similar flourishing of drive is traceable in the eastern half of the European superethnos, where the Slavs came into contacts with the Germans. In the fifteenth century the Czech Hussites took the first step of the Reformation, bleeding both Bohemia and neighbouring regions of Germany white. In the sixteenth century first place passed to Poland, which had absorbed Lithuania and become a pillar of the Counter-Reformation. It was that that ruined her, because it deprived her of the possibility of establishing contact with Orthodoxy.

In the middle of the seventeenth century the Ukrainian Cossacks inflicted several devastating defeats on the Polish troops; later the Swedes walked right over the Poles and plucked them clean; and finally the Turks captured Podolia. The heroic victory of 1673 saved Austria, but finally exhausted Poland, whose decline in the eighteenth century is well known.

Sweden had the greatest successes in the seventeenth century, but that thinly populated country drained its drive with Gustavus Adolphus in Germany, with Charles X in Poland, and with Charles XII in Russia, and did not make good the loss through growth of population. Enough children were born, but not of the sort they used to be in the sixteenth and seventeenth centuries.

Here we must note that neither an economic nor a cultural decline was observed in the Scandinavian and Slavonic lands, as also in the western duchies of Germany, and in Austria and Holland. In the eighteenth century almost all European countries, having overcome the overheated drive of the acme phase, developed their economies, built fine cities, traded with the whole world, making

vast profits, and patronized writers, artists, and scholars, i.e. gifted people but not ones with extreme drive. That was the so-called age of the Enlightenment. The optimum level of drive was reached in Europe through the people with drive going to colonies and playing havoc there, without recalling Voltaire, Rousseau, Kant, and Goethe.

Nevertheless, there was one country in Europe in the eighteenth century where drive was rising. Doesn't that contradict the conception I have been expounding? Let us go into it.

Germany suffered more than the other countries from the horrors of the Reformation, the Counter-Reformation, and the Thirty Years' War. That was due to drive having begun to fall there already in the thirteenth century (about which I have written above); and because of that this rich and civilized country became the victim of ethnoi with a high level of drive. Croats, Spaniards, Walloons, Danes, Swedes, and French trampled Germany from end to end, while the Germans, both Lutherans and Catholics, either suffered the violence of the landsknechts or themselves joined their bands. Faith played no role in that; they joined the commanders who paid best.

Since the Catholics were victorious in 1618 at the White Mountain, the Protestants from Bohemia were compelled to seek safety by emigrating. Many of them found asylum in the neighbouring Margravate of Brandenburg. There, too, French Huguenots willingly settled, and also Polish 'Arians'. Berlin became a refuge for persecuted, principled Protestants who brought drive with them.

The Brandenburg Mark had been founded on the land of the Slavonic tribe of the Lyutichi (Veleti) and its population in the eighteenth century was mixed (Germano-Slav). The import of drive had entailed a mixing of these ethnoi like that which happened in England in the eleventh to thirteenth centuries. Brandenburg, which became the Kingdom of Prussia, thus remained a phase of ethnogenesis behind in relation to Western Germany and Austria. While everyone around was 'enlightened', the Prussians still wanted to fight. They therefore won the War of the Austrian Succession, the Seven Years' War, the war with Napoleon I, and finally with Napoleon III, after which Prussia rose to head a united Germany, excluding Austria and Luxembourg from it.

At the end of the fifteenth century Castile and Aragon were united, Grenada was conquered by the Spaniards, and America (1492) and India (1498) discovered. The forces of Spaniards and Portuguese with drive found application and the tension of drive in the Iberian Peninsula fell to the optimum. That gave the Haps-

burgs, who had inherited the Spanish crown, an immense advantage. The whole of the sixteenth century Spanish infantry went from victory to victory, Spanish gold decided complicated matters of diplomacy, and the Spanish navy ruled the waves. The brilliance of victory over the Turks at Lepanto (1571) softened the bitterness of losing the war, especially since it was compensated by the defeat of Venice. But the defeat of the Invincible Armada (1585) and the loss of Holland (1581), showed that the forces of Spain were not growing but were diminishing. In the seventeenth century Spain suffered defeat after defeat. She did not have the people either to reinforce the army and navy, or for the needs of industry, or to defend her American possessions against French and English pirates. And that was not because depopulation had set in Spain, but because Spaniards simply fought worse and worked less. In 1648 the Spaniards resigned themselves by the Peace of Westphalia to loss of hegemony in Europe, which passed to France, and on the sea to Holland. But the Dutch domination did not last long, since England was emerging. And then a new century of wars with France began for England, which culminated in the Battle of Waterloo (1815), after which the palm of Western Europe passed to her.

All the ethnoi known to ethnology have passed through this phase of ethnic development, with the exception of those that perished in the preceding phases. In Europe this phase coincided with the age of the Great Discoveries, the Renaissance, the Reformation, and the Counter-Reformation. In Rome it was the time of the conquests of Marius, Sulla, Pompeius, and Caesar, and also of the civil wars. In Byzantium an analogous and hard period was the victories of the Isaurian dynasty and iconoclasm. In the Arab Caliphate this age proved fatal; the Caliphate fell apart, Spain and the Maghreb, Mavera-un-nahr (Central Asia) and Khorasan broke away, and it lost connection with Egypt. Negro Zindji, high-cheekboned Turks, and desperate Dailamites were fighting around Baghdad for real power. The Arab were left only the sphere of culture, but they prospered considerably in it.

In China. In ancient China this was the age of the seven 'Warring States'. For clarity let me employ an illustrative analogy. Let me compare China of the fourth century B.C. with Europe of the sixteenth century. The Ch'in kingdom, which included the warlike Di tribes that inhabited the loess valleys of Shensi and the jungles of Szechuan and which subjected them to the harsh discipline of the doctrine of legalism (the School of Law), an analogue of the Jesuit order, was the analogue of aggressive Spain, imbued with the

Mauritanian spirit. To France corresponded the rich, cultured, gay Chu country, covered in the north by the blue Yangtse-kiang and in the south by impenetrable jungles. Chu was Ch'in's most dangerous rival, counterposing the charm of luxury, art, and freedom to the cruel soldiers' system. The heart of China, the territory of the former Jin kingdom, and of the successor of the Chou empire, broke up into three smallish kingdoms, Han, Wei, and Zhao. They corresponded to the territory of Germany, also disunited and the heiress of the Holy Roman Empire of the German nation. The Eastern Qi kingdom, located in Shantung, easily compares with England, and the neglected Yan kingdom in Liaotung with Sweden or Denmark. The situations with such a distribution of forces were analogous: Spain, heading the Counter-Reformation, wanted to subordinate all Europe to herself, but fortunately for herself, was not successful; Ch'in, with its doctrine of legalism, conquered all China in the third century B.C., unluckily for itself.

Imagine for a minute that Philip II had succeeded in such a conquest of Europe. What would have happened? The Inquisition throughout Europe, Spanish garrisons in Paris, Geneva, London, Stockholm, and Venice, for which all the youths of Spain would have been insufficient. Vast outlays on army and police, because it would have been necessary to hold the front against Turkey, and that would have meant exhausting taxes, which would have evoked universal popular hatred. And at the first convenient moment a universal uprising of the peoples, who would not have spared the conquerors. Spain avoided such a fate, but that was precisely what happened with the Ch'in kingdom in 207 B.C. Ch'in never revived then, and China, bled white, was easily united by the first capable pretender. Such proved to be the peasant Liu Pang, who gave the empire built on the ruins the name of Han. There can be different outcomes in similar situations.

Mediaeval China, which arose on the ruins of the old, just as the 'Christian world' of Western Europe arose on the ruins of ancient Rome, took shape as an ethnic entity in the sixth century A.D. and reached an analogous phase in the twelfth and thirteenth centuries. A different fate befell it. The brilliant culture of the Sung epoch became the prey, under a loathsome administration and a demoralized government, of foreigners (Tanguts, Jurchens, and Mongols). In contrast to the Arab Caliphate and the Arabic-speaking Muslim ethnos, China revived under the Ming dynasty, but that was already another phase of ethnogenesis.

As it is clear from these examples, and all the others do not contradict them, it is difficult to consider the acme phase of drive

'flourishing'. In all known cases the sense of the phenomenon consists in a squandering of the wealth and glory accumulated by ancestors. Yet, in all textbooks, in all surveys, in all the multi-volume 'histories' of art or literature, and in all historical novels, the descendants glory precisely in this phase, knowing full well that, alongside Leonardo da Vinci, Savonarola spread terror, and Benvenuto Cellini himself shot the traitor and vandal the Constable Bourbon.

Obviously, a broad range of deeds, from feats to crimes, work on the aesthetic strings of the spirit of the investigator or novelist, and it is characteristic of a man to remember the bright bands of the spectrum and forget the dark patches. It is for this reason that they call these terrible epochs 'flourishing'.

Victims of blossoming. In the early sixteenth century and in the seventeenth the percentage of people with drive in Europe fell, and that of people with sub-drive rose, through destruction of the conservative part of the population, the harmonious persons, the most industrious and law-abiding. The system of the superethnos lost stability, because the individual people with drive could easily enlist mercenaries from the people with sub-drive. Which they did; now as preachers (Luther, Calvin, Savonarola, John of Leyden), now as condottieri (Maurice of Saxony, Mansfeld, Wallenstein), and now as kings who broke the laws of their kingdoms (the Tudor, Henry VIII). Whereas such attempts had previously immediately came up against the resistance of others with drive, now, when these had become fewer, a broad field opened before each, and also, consequently, an opportunity to gather inertia. The clashes of the epoch of the Reformation and Counter-Reformation therefore acquired great scope and cost even more victims. The single system broke apart and people began to seek friends so as not to fall into the clutches of enemies. And since it was senseless to appeal to the rulers for aid, the principle of complementariness came into force, according to which sincere friends were sought who were recompensed with sincerity, because that was the most reliable insurance.

But these unhappy people could not help seeking unity for self-defence, after the Duc de Guise burned a barn where Huguenots sang psalms, and Joan of Navarre threw Catholics who went to mass into an underground dungeon, and the English king Henry VIII hanged a Catholic (because he held the Pope in esteem) and a Calvinist (because he denied the sanctity of the mass) on one gibbet. Cynical rulers were more terrible than infidels because they

had at their disposal executioners and informers without faith, honour, and conscience (people with sub-drive).

But the rulers could not get along without sincerely true servants, which meant they had to go along with one of the two unifying ideologies, Protestantism or reformed Catholicism, because only a memory remained of traditional Catholicism. So the Catholic League and the Protestant Union were formed, and the Thirty Years' War was fought that cost Germany three-quarters of its population. Other countries suffered less, but also considerably. But, alas, not only ideological or political opponents of secular and spiritual rulers died in this phase of ethnogenesis.

During the Renaissance manslaughter was an everyday occupation of the inhabitants of Western Europe and on a mass scale moreover. It was not so much thinkers, poets, and philosophers who were the object of persecution then, though they too came in for it (Michael Servetus was burned in Geneva and Giordano Bruno in Rome) as ordinary, innocent people with imagination. They were declared sorcerers and witches and pitilessly burned. And here is what is worthy of note. Training in witchcraft and magically induced illness was already considered superstition among the Germans in the eighth and ninth centuries A.D. Therefore the laws of the Langobard kings treated accusing a woman of flying on a broomstick as a slander for which the informer was punished and put into prison.³⁶ Under Charlemagne even the death penalty was proposed for such a denunciation. In the ninth century the witch's sabbath was declared an illusion of informers at a council, although certain bishops, like Isidore of Seville, Rabanus Maurus, and Hincmar, the Archbishop of Reims, accepted the idea of lamias.

This humane legislation was not inherited from civilized Rome, which was nearing the phase of obscuration. There sorcerers had either been exiled or executed. No, this was the common sense of people with drive who were building a life for their descendants. It would have been stupid, if they had not been concerned that their grandsons should not become the victims of slanders and tyranny.

But why did persecution of sorcerers arise in imperial Rome? In republican, still semi-barbarian Rome they were not interested in witchcraft, but when the wave of luxurious civilization arrived from the conquered East, hatred of intellect streamed in together with it. Jewish rabbis of the first century A.D. prescribed destruction of sorcerers (the Talmud). In the middle of the second century Apuleius popularized a psychosis of fear of Thessalian sorceresses. And persecution of fortune-tellers had already developed at the end of

the second century simultaneously with the persecution of Christians. That period in Rome coincided with the inertial phase of ethnogenesis on the eve of the transition to obscurity. Europe outdid Rome. Trials of witches began in the fifteenth century; and no one, moreover, accused these unfortunate women of heresy and fighting the Church. They were burned because they were not like others.

Thus, in the 'dark years of the Middle Ages' defenceless creative people, dreamers, and naturalists could live quietly in peace time; during the feudal wars they undoubtedly suffered, but in common with fellow-citizens. But as soon as the epoch of humanism set in, the epoch of religious and philosophical quest, the epoch of great discoveries – what then? The sixteenth century came, the High Renaissance, the Reformation, and the Second Inquisition, which struggled not against Cathars, enemies of the Church, but against defenceless romancers and dreamers and people who knew folk medicine. In this Catholics and Protestants made a common front. However strange it may seem, the most burnings over an equal interval of time were in New England rather than Spain. This shows that the reason for executions lay not in the dogmas of faith but in a *psychological shift*, a lowering of the level of drive of the superethnic system. As soon as an inflection of the curve of ethnogenesis was completed, the execution of witches began to be an anachronism to the Philistines. And so everywhere where the ethnos reached this change of phase.

The fervor of the Philistine is usually fruitless because it comes up against a well-ordered legal procedure under which a critical attitude to denunciations is obligatory. But the inquisitors Jacob Sprenger and Heinrich Institoris themselves were Philistines in their psychological pattern, endowed with extraordinary authority. They knew very well that it was fraught with unpleasantness for themselves if they accused a noble person of witchcraft. They therefore seized, tortured, and burned defenceless women denounced by neighbours. There came about a kind of genocide; honest people, with an aversion to the trade of denunciation, and talented people who evoked envy, were destroyed, while morally unscrupulous dunces multiplied, who gave rise to the generation of European Philistines characteristic of the nineteenth century. That was a statistical process and therefore irreversible.

Splitting of the ethnic 'field'. At the end of the Thirty Years' War (1618-1648), there was weariness. But that did not result in unity. For 150 years both Protestants and Catholics developed different

stereotypes of behaviour, which could only be combined through tolerance. The latter was proclaimed as a principle but was very inconsistently realized. Only in the eighteenth century were old scores forgotten and Europe again acquired a unity, which was called the 'civilized world' rather than the 'Christian'. But even that equilibrium was achieved at the price of a lowering of the drive of the superethnos, which came about relatively painlessly for Europe itself: the people with drive and those with sub-drive (mercenaries) were sent to overseas colonies.

Three Catholic countries (Spain, Portugal, and France) and two Protestant ones (England and Holland) carried on an active colonial policy. For clarity, let us agree on terms. When peasants who wanted to work with their own hands in the new land seized by them went from these countries, that was colonization. When soldiers, officials, and traders went, aspiring to make a fortune from the subordinated country, that was colonialization.

Which was worse for the local population is another question. The consequences of the split in the single field of the European superethnos that was manifested in the religious wars of the Protestants and Catholics affected that. During the colonization of America it was noted that the Spaniards and French entered into contacts with the Indians relatively easily, though not with all of them, while the Anglo-Saxons did not know how to establish relations, except purely diplomatic ones (for example, with the Iroquois in the seventeenth century) and organized scalp-hunting, paying bounties for dead Indians. Allow me to suggest a theoretical answer.

The Spaniards, French, and English were ethnoi that were and had hitherto been part of the Romano-German superethnos. But within that entity they were very unlike one another in their ethno-psychological dominant. The colonization of America coincided with the Reformation, i.e. with a complete reorganization of the psychological structure in the phase of the historical existence of the superethnos. The structure was simplified and the energy thereby liberated gushed out beyond the limits of the West-European geobiocoenosis, within which the separate variants of the culture were isolated from one another. Not only Protestants but also Catholics after the Council of Trent, became unlike their ancestors, because Savonarola, Piccolomini, and Loyola did no less for ethnocultural deformation than Martin Luther or Calvin. The isolation of nations is thus a natural product of ethnogenesis, but the divergence of stereotypes of behaviour is its inevitable consequence.

Different stereotypes determined the different attitude of the European colonists to the Indians.

The Spaniards saw the caciques of the local tribes as nobles, and after baptism gave them the title 'Don'. As a consequence, a significant part of the Indians in Mexico and Peru were assimilated. The French in Canada were attracted by the Indian way of life, and by the nineteenth century they had borrowed much from the Indian tribes. During the Riel rebellion the metises and the Indians acted together. The Anglo-Saxons drove the Indians into reservations except for those who agreed to the American way of life.

With application of my proposed conception it may be supposed that there was a consonance in the rhythms of the Catholic ethnoi with the Indians, but not with those who chose Protestantism in Europe. And indeed, in the sixteenth century, almost all the nations of Europe were divided into Catholics and Protestants, and each, moreover, chose the stereotype suitable for it.

Let us check. Great Russians mixed with Tatars and Buryats who adopted Russian culture to a significant extent, and easily dissolved among the Yakuts, but the Ugrian peoples preserved their distinctiveness in spite of long, close, friendly intercourse with Slavs. But the Russians did not come to an understanding with the Indians in Alaska and in California, and were unable to consolidate themselves there in spite of the support of the Aleuts and Eskimos. And it was not by chance that during the Thirty Years' War Russia supported the Protestant Union against the Catholic League, took Protestant Germans into her service, and traded with Holland. Yet Catholicism was closer in dogmas and rituals to Orthodoxy than Protestantism. The ethnic element evidently predominated over the ideological here too.

The Protestants who went to South Africa (Dutch, French Huguenots, and Germans) took shape as an ethnos called 'Boers'. These were most intolerant to the aborigines. Slavery was abolished in the Transvaal only in 1901. But the French in Haiti taught the Negro slaves French and the Catholic religion. The Negro curés interpreted the latter in their own way. In 1792, when the British navy was blockading revolutionary France, the Negroes rose in rebellion against the French planters, motivating their attitude to them as follows: 'God came to the whites, but the whites killed God. We shall avenge God—we shall kill the whites'. And they killed all the Frenchmen on the colony.

All the same that was not estrangement, but a form of ideological contact at superethnic level. Now the Haitian Negroes revived the Dahomeyan cult of Voodoo, serpent-worship, among them-

selves, but admitted only Catholics, including Europeans, to the mysteries.

One can conclude from these observations that the Reformation was not so much a revolt of an idea as a phase of ethnogenesis, a break that was formed during the transition from the acme phase to the inertial.

The break and its significance. It follows from what I have said that the phases of ethnogenesis differ only in degree of variety and diversity determined by the level of drive. There are always people of the sub-drive characteristic of homeostasis, but with the rise of several generations of people with drive they lose their exceptional significance in the established system, and are then simply not noticed. During the upward swing the role of harmonious people who conscientiously do their duty grows. And they do not disappear in the acme phase when, with an overheating of drive, the individuals with most drive perish one after another. After this, the significance of harmonious individuals again rises in the inertial phase, but diminishes rapidly in the phase of obscurity when, together with quiet people of sub-drive inherited by the ethnos from its substrata, there appear violent mercenaries ('wandering soldiers'), a product of the residue of the acme phase. These types easily make short work of the harmonious individuals and simplify the system right to loss of resistance. Then they themselves perish, and, as a result of the collapse of the ethnos, its inimitable culture is forgotten and homeostasis sets in.

This ethno-social pattern is traceable as well in the ethno-geographical material. The characteristics of the phases coincide.

An ethnos, during its creation, hews the landscape to its needs and at the same time adapts itself to the conditions of the terrain; in short, the principle of feedback operates here, by which nature suffers minimally. In the acme phase, when the ethnic system swells with energy, a time of conquests and migrations sets in, the former being limited by the resistance of neighbours, and the latter as well by the natural conditions. Nature suffers doubly. In their native land it is boring for the people with drive to till the soil. They prefer more difficult but also more attractive modes of existence and flourishing. The pressure of civilization on nature is reduced but, since a negative growth of population is often associated with these stormy periods, the economy also falls into a decline, as a consequence of which there is a restoration of the natural landscapes (forests, steppe, and marshes) and also of the population of wild animals.

But on the other hand countries conquered by people with drive suffer very heavily. Those ethnai become victims of conquest, as a rule, in which the level of drive is low, which prevents them from organizing an effective defence. They themselves, therefore, and the wealth of their countries, including the products of nature, become the booty of the victors.

Suffice it to recall the 'gold fleets' of the Spaniards, carrying gold from Mexico and Peru, or the silver mines of Potosí (Bolivia), which became the grave of countless numbers of Indians. And the Portuguese plantations in Brazil can only be compared with the Dutch colonies in Java and the other Sunda Islands. In both thousands of Malays and Negro slaves perished so as to convert luxurious groves on the hills of Portugal and the meadows of the Netherlands into the estates of businessmen and magnates who were not afraid of risk for the sake of this splendour and glitter, and did not spare either others or themselves. The fur companies of Canada almost completely exterminated the beavers, to save which it has been necessary to create game preserves. In East Africa elephant hunters wiped out whole herds just to get money for the ivory tusks sold on the London market.

It was the same in antiquity. In China the rhinoceros was wiped out; in Khotan the surface deposits of nephrite were worked out. But enough of examples. Let us look at the matter from the other side.

However ferocious conquerors with drive showed themselves to be, they did limited harm to nature. They took only what lay on the surface, what they had to fight for but not to work for. Therefore, after their victorious campaigns, there remained restorable biocoenoses, and heavily battered but not exterminated tribes of Indians, Negroes, Polynesians, and Papuans. The people with drive themselves risked their lives every minute.

The social imperative with a change of phases from an upsurge of drive to a lowering of its level in an ethnos can be formulated as follows: 'We are tired of the great'. The standard of brilliance of ethnic populations is therefore lowered artificially, it not entering anyone's head that the power of the state and the ethnos' degree of resistance were being lowered thereby.

We have already seen that, in a number of cases, this led to disastrous consequences, but it was useful to the Romano-German integrity of Western Europe. Western Europe was a peninsula of the Eurasian continent. The sea defended it on three sides. There was danger only in the south-east, where the Turks, having broken Byzantium, carried out a broad offensive in the sixteenth and seven-

teenth centuries. Hungary fell. It was the turn of Italy and Germany next. And then heroic Poland, the most backward³⁷ of the countries of Western Europe, and therefore preserving comparatively large dose of drive, sacrificed herself. Jan Sobieski's hussars saved Vienna in 1683. By shedding their blood for Germany, the Poles prepared the partition of their own country. When the reverse bend in Germany finished, and the inertial phase set in with national consolidation, Europe again became invulnerable and aggressive, but very little like herself in the preceding period. She had been converted from 'chivalrous' into 'commercially-minded', and I must speak specially about that. But now let us return to Jaspers' conception, or rather to the views of West-European philosophers of history. They all, beginning with St. Augustine, have seen a direction and sense in history. All oriental thinkers saw rises and falls in history, in other words, considered the processes as an end in themselves, and believed the sense to be personal improvement with history only a background.

The difference was evidently not a chance one. In my view, it is that Westerners talk about progress created by human hands, i.e. the technosphere, in which one must also include philosophy, also the product of human activity, while oriental sages talked about living nature, of which people are a part, and technique the background. Let me translate that into scientific terms: in the West they studied socio-cultural history, in the East ethnic history, often simply genealogy. And one cannot say that the one is more important than the other. Both are necessary. It is bad only when the methods of sociology are applied to the study of natural phenomena. It is good that the reverse does not happen.

I could end the dispute with Jaspers and other teleological systems of religion and progress on that. Two leading factors are involved in ethnic processes, viz., loss of the inertia of the initial impulse, i.e. aging, and the forceful, violent effect of neighbouring ethnai or other forces of nature,³⁸ i.e. displacement. The latter always deforms the ethnogenesis programmed by nature herself, but displacement can only be catastrophic at moments of reverse or downward bending.

The Phase of Ethnic Inertia

The 'golden autumn' of civilization. After people have survived upheavals they want quiet, not advance. They have already learned to understand that the individual who wants to display

himself in all his originality is most dangerous for neighbours. But the danger can be avoided if the social imperative is changed. It is sufficient simply to invent or depict an ideal bearer of the best stereotype of behaviour, even if it has never existed, and to require everyone to copy it.

In the ancient world the cult of the king as god was created on that basis. Alexander the Great laid the basis of this perception of the world when Egyptian priests declared him son of the god Ammon. Alexander liked that, but his generals categorically refused to accept such a version as insulting to Alexander's parents, Philip and Olympias.

But the idea only died away for the time-being. It was revived under the successors of the Diadochi, especially in Rome, after Augustus. Rulers began to demand all the honours for themselves due to gods, which meant that the image of the ruler, even not his individual qualities but what was associated with duty, were deified. Rulers thus became examples for imitation obligatory for all.

The Romans well understood that scoundrels, murderers, and liars, who, as people, deserved perhaps the blow of a knife in the belly, ascended the throne, but the principle of the 'divinity of the caesar' became an obligatory condition of decorum and loyalty to the established order. And the memory of the bloody centuries of the acme phase was so terrible that any guarantee of order seemed desirable.

In modern times, in the seventeenth to nineteenth centuries, a similar principle found embodiment in the image of the 'gentleman', an honest, educated person, which it was proposed should be imitated as far as possible. Deviation from the imitation was condemned, if not by law, by public opinion. Its pressure was sufficient.

In the East it was proposed to follow the example of a certain honoured hero of antiquity. In short, all manifestations of originality were persecuted for the sake of an ideal.

But it proceeded slowly. For people who did not want to disown their own originality, there remained the spheres of art and science, which seemed innocuous. He who seized a sword in the sixteenth century sat at home and wrote treatises in the eighteenth century, valuable if the author was talented, and senseless if he were a graphomaniac. And since there were always more of the latter, huge libraries were created filled with books there was no point in reading. It is called 'growth of culture'.

A similar situation built up in the Far East, which entered the inertial phase in the tenth century A.D. In China it was the Sung epoch, which left a vast number of objets d'art, not of such genius

as those that survived from the Tang dynasty but made with even more virtuosity. In Tibet the monasteries were filled with books translated, but more often rewritten from old originals.

Of course geniuses appeared on this background (thinkers, scholars, poets), but there were not more of them than in the cruel acme phase. But they had good pupils, and disciples, and their conceptions had resonance. For example, the 'yellow faith' of the teacher Zonghawa (1355-1418) intellectually enriched not only separate consortia or sects but whole peoples (Mongols, Oirats, and some Tibetans). In Byzantine culture this role was played by monks of Mt. Athos (fourteenth and fifteenth centuries), whose ideas, while not accepted in demoralized, doomed Constantinople, found a response in Great Russia.

But enough examples. Clearly, the inertial phase of ethnogenesis is a fall in the drive or vigour of the ethnic system, and a growth in the accumulation of material and cultural values. Let me test my conclusion on a neutral indicator, viz., the change in stereotype of behaviour at the level of the Romano-German superethnos.

From the world of Christianity to the civilized world. It would be surprising if such a grandiose phenomenon as change of stereotype of behaviour on the scale of a superethnos had not yet been noted or described. No, both has been done, though from an absolutely different position than mine, and in another system of concepts and terms. It doesn't matter! The terms of any account can always be translated into one's own. Direct observations do not lose value through that.

Werner Sombart wrote his *Der Bourgeois. Zur Geistesgeschichte des modernen Wirtschaftsmenschen* (On the Spiritual History of Modern Economic Man) in which he set himself the aim of showing how 'pre-capitalist man', i.e. 'natural man', was converted into the shallow, petty-bourgeois, Philistine person now observed everywhere. Before the rise of capitalism, according to Sombart, in the twelfth to fourteenth centuries, 'the starting point for economic activity was man's need ... however much man spent, so much must he receive.'³⁹ And only a fool could accumulate more.

There were, however, two classes, the rich signori and the mass of the people. But the difference between them was not so great. The signore, constantly risking his life, received many goods, and then squandered them on sumptuous hunts, feasts, and beautiful ladies. There was no point in saving money; he would perish all the same in the next war, and if not, then in the following one. Therefore, while you were alive and healthy enjoy yourself.

The peasant had as much land as he needed to feed himself and his family. The craftsman, according to Sombart, had the common sense not to work more than was necessary to earn a merry living. If these people had seen a Rockefeller they would have considered him mad.

But mediaeval Europeans did not consider the possessors of silk gowns and gold ornaments mad. They valued treasures and did not spare either their own or others' lives for them. They valued ringing, fine gold and not money, which they began to be attracted by only in the twelfth century. It was then that the 'passion for profit' arose which had only been observed up to then among Jews.⁴⁰ Greed first gripped the Catholic clergy, then the burghers, and finally whole countries, but not to equal degree, and in different variants. Sometimes it pushed them to pillage overseas countries. Sometimes it was satisfied by trade which was also risky. Another path to riches was 'filthy money-lending'. Others achieved their end by obtaining lucrative posts, and so on. But the guiding stimulus of activity everywhere was an instinctive striving for enrichment that had almost not been seen up to then.

One might suppose that greed arose with the development of opportunities to satisfy it. Sombart rejected the thesis that 'the capitalist spirit was created by capitalism itself'.⁴¹ He also did not agree with Max Weber that there is a link between Protestantism and capitalism. Instead he saw the cause of the development of the capitalist spirit ... in predispositions inherited from ancestors,⁴² i.e. he considered these propensities an inheritable attribute. Therefore there are special 'bourgeois natures', which Sombart divided into 'entrepreneurial' and 'middle class'.⁴³ The former were gallant adventurers, founders of capitalism, and the latter dismal, moderate, thorough clerks whose mass and bulk filled the vacuum formed after the death of their predecessors.

According to Sombart the 'predisposition' to capitalism is observable not only at the level of the person or organism but also at the level of the ethnos. That convinced him of the biological nature of this phenomenon.⁴⁴

He classed Celts and Goths in the ethnoi 'with a weak capitalist predisposition', and placed only the Iberians below them ('a completely uncaptalist people') who were 'immune to the fascination felt by almost all peoples for gold'.⁴⁵

Ethnoi inclined to capitalism were divided into two types: 'hero folk' and 'trader folk'.⁴⁶ Sombart put the Romans, Normans, Langobards, Saxons, and Franks among the first (and so the English and French), and the Florentines, Scottish Lowlanders, and Jews

among the second,⁴⁷ and also the Frisians, who, he said, 'were very early on considered clever, slippery trading people'.⁴⁸ Sombart needed that in order to explain the mercenary mindedness of the Dutch and Lowland Scots, because there is a suggestion that Lowland Scotland was settled by, among others, Frisians. Sombart did not deal with the Slavs and Greeks, seemingly not considering them, in contrast to the Jews, as European peoples, which indicates that a superethnos rather than a geographical region fell into his field of view. That makes his analysis interesting for my theme, because he described, as a matter of fact, the transition from the acme phase to the inertial phase. But considering peoples (ethnoi) as stable systems, and subdivisions of races, Sombart had to explain the triumph of the 'petty-bourgeois spirit' in Tuscany by an admixture of Etruscan 'blood', although the Etruscans disappeared in the fourth century B.C., and the Florentines became petty-bourgeois in the fifteenth century. That gap of 2 000 years already puts one on one's guard and compels one to criticize the conception.

I suggest that Sombart's observations are true but his interpretation of them unsatisfactory. The Iberians were the oldest layer of Europeans, and were already in homeostasis at the time of the Romans. When one sees only the final phase of ethnogenesis, one cannot judge the foregoing ones. The descendants of the trading Etruscans are the Corsicans, who long ago lost the habits of their forefathers, and still preferred the vendetta to trade in the nineteenth century. I have written about the Celts above. The peoples listed by Sombart as traders all had one common attribute, a high degree of mixed breeding. Tuscany lay on the road from the north to Rome. Across it passed, only after the tenth century, Swabian Ghibellines, Angevin Guelphs, Spaniards, French, and Austrians. And all sowed their gene fund among the Tuscan population. The Scottish Lowlands were a zone of contact between Scots, Angles, Norse Vikings, and French barons, who were planted there by English and Scottish kings because the borders were restless and troubled. The lower reaches of the Rhine, the region of the Frisians, were also a place of ethnic contact of a German, Roman, and Celtic population. That is the sole attribute there is in common for all the 'trader folk', but it is sufficient. One can add Southern Italy and Andalusia to their number (which Sombart seemingly overlooked). The picture is not changed.

The difference between 'signori' and 'entrepreneurs' is not so great. Both are people of vigour and zest, or drive, but in different modi. The former are vain, the latter greedy, but these differences are not essential. What is important is that both differ markedly

from the petty bourgeois, clerks, and real bearers of the 'capitalist spirit' which, in my view, is only an impoverishment of the original creative zest that always arises during an upsurge of drive. The 'petty bourgeois' condemn the 'signori' only because they would like to be like them but cannot.⁴⁹ They are the remnants of the creative soaring from which only the 'motive of gain' remains for them, i.e. these are harmonious individuals, and even people with sub-drive.⁵⁰ But it follows from this that we are faced with an ordinary entropic process similar to the cooling of a hot gas that converts it into water and then into ice; by that one can understand a state of homeostasis, the limit of any process of ethnogenesis.

And now let me put Sombart's observations into the schema of ethnogenesis proposed above. In the ninth to eleventh centuries, when there was still no 'capitalist spirit' in Europe, there was also no active ethnic cross-breeding. People lived in small ethnic groups that had been formed recently and were protecting their originality. The fact that these newly born ethnoi consisted of different racial components is of no significance. Their stereotypes of behaviour were original. The tasks facing any one ethnos were common for each of its members. Drive was equally displayed in all strata of the population, as a consequence of which the social states were fluid. Cowardly barons died, and valiant villeins became either knights or free townsmen.

In the twelfth to fifteenth centuries there was a division. In the monolithic ethnai there was a complicating of social systems, a strengthening of the monarchy, a waste of people of excess drive in the Crusades or in neighbouring countries (the Hundred Years' War). And in zones of ethnic contact, 'trader folk' appeared and grew rich. In the acme phase of the superethnos they lived through the dissensions, enjoying the patronage of rulers. But gradually they gathered strength and a second down turn began, to the inertial phase most comfortable for them. It was similar to the cooling of steam, being converted into water, at first hot, and then warmish.

As we already know, any change of aggregate state of a medium requires a big expenditure of energy, in our case vigour or drive. Like any energy, drive operates through a difference of potentials. This difference can arise either from an impulse of drive, a natural phenomenon, or through close interethnic contact in which the drive of one ethnos exceeds that of the other. The results will be different: destruction of the natural landscape is recorded only in the second variant, which I have demonstrated in a number of examples.

At the same time one must note that destruction in the anthropogenic landscape is not by any means the rule, but a deplorable exception, fortunately quite rare. If it were otherwise, then, after 50 000 years of the existence of neoanthropes, the whole geobio-coenosis would have been destroyed and man himself would have perished from hunger on an Earth made infertile. One must consequently recognize that man's impact on the biosphere takes two opposing directions, life-asserting and life-denying.

In the sixteenth to eighteenth centuries 'cooling' of the Romano-German superethnos proceeded rapidly. People of drive went to colonies and either died there or returned sick. Harmonious individuals worked persistently at home, in their fields, workshops, counting houses, and university lecture halls. They never struggled for advantages, in practice onerous for them. And that is how 'trading people'—Florentine money-changers, accommodating diplomats, intriguers, and adventurers—took the place freed by the people with drive. They were foreign to the local ethnos but precisely because of that extremely convenient for the monarchs, especially when they had no homelands.

And suddenly, luckily for them, Watt's steam engine was built and subsequently technically improved. Towns grew and became polyethnic. People began to live without ties with their ethnos, sometimes maintaining only remote contact with it. And that is how the 'capitalist spirit' of Europeans developed, so well described and abused by Sombart.

But why did that happen so easily? Only because, figuratively speaking, the water cooled and froze. But when it is all turned to ice, i.e. when the phase of obscuration sets in, the mercenary-minded tradesmen—bacteria who eat away the guts of the ethnos—will perish, but a relict of the ethnos may remain.

Civilization and nature. The conception of ethnogenesis that I have proposed here would be subjective if we did not have a scale for comparing it. But there is a scale; it is the history of the anthropogenic landscape, i.e. the history of the interaction of technique and nature, through the mechanism called an ethnos. In the phase described, people's attitude to their natural environment changes sharply, once again through a lowering of the ethnic system's drive.

However people with drive play havoc, the triumphant Philistine is a phenomenon far more deadly as regards the nature that feeds us. In this phase no one needs risk, because the necessary victories have been won, and reprisals against the defenceless have begun. And who is more defenceless than the blessed biosphere?

It was proclaimed that 'man is the king of nature', and he began to draw tribute from it calmly and systematically. Cotton plantations covered the once green hills of Dixieland, and in a certain, quite short time converted them into sand dunes. The prairies were ploughed, the harvests were immense, but only for a while; then dust storms blew, ruining gardens and crops in the eastern states as far as the Atlantic. Industry developed and yielded immense profits, but the Rhine, the Seine, and the Vistula became open sewers. The environs of settlements and towns are polluted by industrial wastes, and poisonous chemicals are dumped into rivers. No people with drive would ever have thought of such an idea; it is impossible to explain anything to them. But does it need explaining? For this is not the last phase of ethnogenesis.

Ethnoi that bear on their shoulders the huge load of the culture accumulated by their forefathers behave just the same. No technical advance in itself entails progressive development without the involvement of people, although it may be eroded by the constant action of destructive time. Egypt of the Old Kingdom and Sumer had a higher level of cultivation than Egypt of the New Kingdom and Assyria, which conquered Mesopotamia. It is seemingly a matter not of things but of people, or rather of their stock of creative energy, i.e. drive. Technique and art can therefore be regarded as indicators of ethnic processes, as a kind of crystallization of the drive of past generations.

But perhaps I am overindulging in political history? For it is accepted to consider that history and nature study are so remote from one another that it is not justified to compare them. John Stewart Collis wrote in his *The Triumph of the Tree*:

No doubt Saint Paul was right to preach against the people of Antioch, and other prophets to lay their curse upon other cities. But they did the right thing for the wrong reasons. Those sins were not moral; they were not theological — they were ecological. That pride and that luxury might have been a great deal more pronounced and yet no harm befallen them; the green fields would have continued to yield them increase and the limpid water to bring refreshment: that immorality and that impiety might have spread further and mounted higher, and still the strong towers would not have shaken and the massive walls would not have crumbled: but because they had been unfaithful to the land upon which they lived and which God had given them; because they had sinned against the laws of earth, and despoiled the forests, and loosed the floods, they were not forgiven, and all their works were swallowed in the sand.⁵¹

Brilliant, but not true! The immorality and impiety in the cities were the prelude to savage treatment of forests and fields, because the cause of the one and the other was a lowering of the ethno-

social system's level of drive. During its preceding rise a characteristic feature had been severity toward itself and neighbours. With lowering, 'philanthropy', forgiveness of weaknesses, and then neglect of duty, and then crime, had been characteristic. And a habit of the latter led to transfer of the 'right to outrage' from people to the landscape. An ethnos' level of morality is the same phenomenon of the natural process of ethnogenesis as predatory destruction of living nature. Because we have caught the link, we would have been able to write the history of the anthropogenic landscape, i.e. that deformed by man; because the meagreness of the direct descriptions of resource-use in old authors can be supplemented by descriptions of the moral standard and political collisions of the epoch studied. It is the dynamics of the described relationship that is the subject-matter of ethnology, the science of man's place in the biosphere.

As a matter of fact I have described the manifestation of a micro-mutation that can be characterized as restoration of equilibrium disturbed by an impulse of drive. The latter is reflected in the nature of a region no less than in people that inhabited it. A surplus of energy leads to the development of new needs and consequently to a reorganization and restructuring of the enclosing terrain. I cited examples of this above; I now need to generalize them and determine their trend.

As a rule a striving for improvement and provision of amenities is characteristic of the first phase. An ethnos that is beginning to live does not imagine that an end awaits it also. And if some such idea had entered anyone's head, no one would have wanted to listen to him. There is therefore a desire to build forever, sparing no efforts. The riches of nature still seem inexhaustible, and the job is to arrange unhampered winning of them. Sometimes that leads to rapacity, but the strict order established and maintained by the social system limits the initiative of private persons. Indeed, if the English kings and their sheriffs had not introduced cruel laws against poachers, who were called 'Robin Hoods' in the Middle Ages, there would have been not only not a single deer left in England, but most likely not a single unfelled tree and untrampled meadow. Perhaps it is better to admire not the heroes of English folk ballads but their enemies, although both were bearers of mounting drive which the killed animals, alas, lacked. For them the Hundred Years' War, which cost many human lives but postponed death of the nature of Old England and La Belle France, was a good thing.

Such collisions have occurred many times, but the biosphere found a way out of the impasse. Nature sometimes changes more quickly than history.

As I have already said, the process of the obscuration of Western Europe was interrupted by an impulse of drive in the ninth century, but the wounds inflicted on the biosphere then were not healed. In Gaul and Britannia, because of heightened humidity, the forests and meadows were restored; in Italy and Andalusia lemon and orange groves were grown, but in dry Northern Africa the desert encroached. Whereas the Roman cavalry had obtained horses in the second century from the countless herds pastured on the southern slopes of the Atlas, in the eighth century the Arabs had begun to raise camels there. There was no change of climatic conditions there because this was a zone of a stable anticyclone, the Azores anticyclone. But it was impossible in those natural conditions to restore the thin layer of humus in a few centuries. From the second century B.C. to the fourth century A.D. the Romans had systematically driven the Numidians, the ancestors of the Tuaregs, south. The latter moved away with their herds, which gradually converted the dry steppe into the stony desert of the Sahara. And at the eastern end of Eurasia the Chinese played the role of the Romans, pressing the Hunni northward and converting the wooded slopes of the Yinshan into the boundary of the stony Gobi desert, and the Ordos steppe into a chain of sand dunes. There, it is true, the anthropogenic processes were combined with the heterochronism of heightened moisture in the arid and humid zones, but it is easy to make allowance for that phenomenon to be sure that it does not alter the conclusion.

There is a suggestion that natural processes—droughts and floods—are as devastating for the nature of a region as the activity of man armed with the technique of his time. But it is not so! Natural processes create reversible changes. The repeated parching of the Great Steppe in Eurasia, for example, caused a shifting of the dry steppe and semidesert northward and southward from the stony Gobi. But the subsequent humidification led to an opposite process; the desert was overgrown by steppe grasses, and the forest encroached on the steppe. And, parallel with that, the anthropocoenoses were restored—the nomads migrated with their herds ‘for grass and water’.

But ethnogenesis is a natural process; consequently it should not, of itself, create irreversible changes in the biosphere; and if it does, then obviously some other factor is involved. What? Let us look.

In the Great Steppe ethnogenesis began three times in the historical period: in the fifth and fourth centuries B.C. with the Hunni; in the fifth and sixth centuries A.D. with the Turks and Uighurs; and in the twelfth century with the Mongols and, in the Sungari taiga alongside, the Manchus. All these regenerated ethnoi were descendants of aborigines, their predecessors. They did not expend their surplus of drive on changing nature, because they love their land, but on creating original political systems (the Hunnic clan power, the 'Eternal Ehl', the Mongol *ulus*), and on campaigns against China and Iran. In that aspect the nomads were like the Byzantines. And it was not by chance that both are regarded, from a standpoint of Eurocentrism, as 'second-rate' or 'defective', although, from the angle of the need to protect the environment, the Europeans and the Chinese should have learned from the Turks and Mongols.

But the worst in the phase of civilization is the stimulus of unnatural migrations, or rather the resettlement of whole populations from a natural to an anthropogenic landscape, i.e. into towns. Although each town, irrespective of its size, exists at the expense of natural resources, it accumulates such a great technical base within it that newcomers from quite dissimilar countries can live in it. They are able to feed themselves in the urbanistic landscape, for example, through exploitation of the aborigines who created and maintained this artificial landscape. The most tragic thing in this collision is that the migrants set up a feedback with the aborigines. They begin to teach them, to introduce technical improvements suitable for the native terrain of the migrants but not for the countries to which they have been mechanically transferred. This projection is sometimes remediable; and sometimes flourishing countries are even converted not into deserts but into badlands where the destructive effect of technique is irreversible.

Such a fate overtook Mesopotamia as a consequence of the calamities of historical fate. There the Sumerians turned the marshes into an Eden, and the Semitic Akkadians built a town called 'The Gateway of God' (Bab-elom) or Babylon. Why are there only ruins on its site now?

Who destroyed Babylon? It seems improbable that a city that was the cultural and economic centre of the Near East for 1 500 years, perished for no fundamental reasons. So what were they? And what was the mechanism of their action? There is no answer in the literature.

This great city was founded by the Amorites in the nineteenth century B.C. and conquered by the Assyrians in the seventh century B.C. The conquest was bloody, uprisings were put down brutally. Neighbours joined in the war (Elamites and Chaldeans). The Chaldeans, a tribe of eastern Arabia, overthrew Assyria in 612 B.C. and became the masters of Babylon, whose population was as much as a million, but included very few descendants of the ancient Babylonians.⁵² The culture and economy of the city outlived its founders, and the system, with a new ethnic replenishment, continued to function. Despite all the bloodshed, the stable anthropogenic landscape was not destroyed until the sixth century B.C.

The economy of Babylon was based on a system of irrigating Mesopotamia, the surplus water being drained into the sea via the Tigris. That was rational, since the waters of the Euphrates and Tigris carried much suspended matter from the Armenian uplands during floods, and choking of the fertile soil by gravel and sand was undesirable. But in 582 B.C. Nebuchadnezzar concluded peace with Egypt by marrying Queen Nikokerti (Nitocris), who subsequently passed to his successor Nabonidas. Along with the Queen arrived her suite of educated Egyptians. Nikokerti suggested to her husband, seemingly not without consulting her closest advisors, to dig a new canal and increase the irrigated area. The King of the Chaldeans adopted the Egyptian Queen's plan, and in the 560s the Pallukat canal was dug, which began above Babylon and irrigated a vast area of land beyond the river flood plains.⁵³ What happened as a result?

The Euphrates began to flow more slowly, and the alluvium settled in the irrigation canals. That increased the outlay of labour on maintaining the irrigation network in its old state. The water from the Pallukat, which passed across dry territories, caused salting of the soil. Farming ceased to be profitable, but the process dragged on for a long time. In 324 B.C. Babylon was still such a big city that the romantic Alexander the Great wanted to make it his capital. But the more sober Seleucus Nicator, who gained possession of Babylon in 312 B.C., preferred Seleucia on the Tigris and Antioch on the Orontes to it. Babylon was deserted, and in 129 B.C. became the booty of the Parthians. At the beginning of our era it was in ruins, in which a small settlement of Judeans made their quarters. Then it disappeared.

But could one capricious queen really ruin a huge city and a flourishing country? Obviously her role was not decisive. For if the king in Babylon had been a local resident he would either have understood himself what devastating consequences an ill-con-

sidered measure would have or he would have consulted fellow-countrymen and have found capable people among them. But the king was a Chaldean, his army consisted of Arabs, his counsellors were Jews, and none of them even bothered about problems of the geography of the country, conquered and bled white. The Egyptian engineers mechanically transferred their techniques of land improvement from the Nile to the Euphrates. The Nile carried fertile silt during its flood, and the sand of the Libyan desert would drain away any quantity of water, so that there was no danger of salting of the soil in Egypt. The most dangerous thing was not even a mistake but the failure to pose the problem where it should have been posed. For the inhabitants of Babylon, who had replaced the Babylonians killed in war and carried off and dispersed, everything seemed so clear that they didn't even want to think about it. But the consequences of the next 'victory over nature' killed their descendants. That is the difference between the 'geography of population' and ethnology. Bare statistics figure in the former, but in the latter the problem of the relation between an ethnos and the terrain in the different phases of ethnogenesis.

The consequences of land improvement in Mesopotamia could not be corrected, although attempts were made. In the seventh to ninth centuries A.D. the Arabs had vast amounts of cheap labour at their disposal. They obtained Negro slaves from Zandj (Zanzibar) whom they called Zindji. They forced these slaves to gather up salt crystals in baskets in the environs of Babylon. The idea of improving the soil that way was impractical, because the fine crystals were not visible to the naked eye. And the work was ghastly, murderous in fact – under the scorching sun, with hands eaten away by the salt, and without hope of rest!

The desperate Blacks rose in revolt. The uprising lasted from A.D. 869 to 892 and ended, as was to be expected, in the death of all these unfortunate people. But, furthermore, having sacrificed their own lives, which no longer gladdened them, the Zindji destroyed the Baghdad Caliphate, because the vice-regents of Egypt and Khorasan broke away from Baghdad, the bandit Ya'qub Saffar reached the capital's walls, and the sectarians of Bahrein, the Karmathians, achieved independence. That happened because all the Caliph's forces had been thrown against the Zindji, and all his funds were needed to hire Turkomans to reinforce the depleted army.

The Turkomans, warlike steppe dwellers, having seen that they were the sole real force in Baghdad, began to change the Caliphs to suit themselves and to suppress the indignation of their employers,

the Arabs, by force. They were only expelled with the help of hill-men, the Buidi, Shi'ites, who were enemies of everything Arab, and who made the Caliph their puppet.

That was the price of the second attempt at land improvement and water conservancy, ill-considered, and as irresponsible as the first.

But one must not think that any improvement of the soil is disastrous. It only becomes so when it is not thought out, the locality is not studied, and the consequences not allowed for. And that happened in antiquity when outsiders and newcomers took charge. They had no time to study, but had to act immediately—and see the results! But when an ethnos is in charge that constitutes part of the surrounding terrain, it works in unison with the natural processes and creates a stable biocoenosis in which there are ecological niches for plants, animals, and people. That usually happens in the early phases of ethnogeneses, because they are natural processes that are blended into the natural forming of Earth's relief envelope.

What is a 'decline of culture'? I have been drawing attention to cruel, sombre eras, poor in remains of objets d'art, and that is not by chance. The beautiful eras, rich in masterpieces, have been described many times, and there is no point in repeating the descriptions. It is more to the point to bring out and explain why the bright periods in the history of culture are succeeded by dark ones.

Thinking people in the Middle Ages sincerely believed that they lived in a time of decline, which was expressed in a permanent loss of the heritage of antiquity (the Roman Empire and apostolic Christianity). Only in the fifteenth century did that feeling disappear, as a consequence of which that age is called the Renaissance.

Interestingly, Chinese held the same ideas, grieving for the culture of the Han dynasty, and Persians, lauding their history, and the Arab Bedouins who opposed the teaching of the Biblical prophets Adam, Noah, Moses, and included among them Kings David and Solomon, to orthodox Islam.

There is no point in arguing about the truth of these convictions. They were rooted in the feeling of the time, which was in itself a fact; and if it was a global feeling then it is a historical fact. And if that is so, then it can and should be explained scientifically.

But first I must ask what was in decline (or in advance). There are rises and falls in ethnic processes and in the history of culture, but they do not coincide with one another in phase. That is not accidental. An outburst or explosion of drive inspiring ethnogenesis is as a rule lethal for and destructive of the preceding culture. The

old Christians smashed masterpieces of antique sculpture; the early Goths, Vandals, and Franks burned towns and cities with magnificent memorials of architecture; the Arabs destroyed the libraries of Alexandria and Ctesiphon, and plastered over the frescoes of the cathedrals of Cordoba. Art suffered terrible, irreplaceable losses, but that cannot be called a decline, because the creative impulse, as such, was respected and only the cultural dominant was changed.

On the contrary, however, the classical era of decline, the Roman Empire of the second to fourth centuries A.D., is characterized by an increase in the production of statues and frescoes, the building of temples and theatres, and the erection of triumphal arches. But a lowering of aesthetics standards and of quality was characteristic then, as I have said. The depictions of emperors were conventional, and the busts of matrons were not expressive, because both were tributes to the requirements of propriety and decorum as it was then understood. Things were even worse with architecture. In order to erect Constantine's triumphal arch in time, Trajan's arch was dismantled. That was no longer craftsmanship but simply hack-work. Roman tenement houses were built so badly that they often collapsed, burying the residents under their ruins. Rome had ceased to live creatively before the Goth and Vandal devastations.

Had it indeed? For even in those cruel centuries there were authors of immortal works: Lucian of Samosata, Ammianus Marcellinus, Sidonius Apollinaris, not to mention the pleiad of Christian philosophers and the Neoplatonists close in spirit to the Christians.

Yes, it was so, but remember that readers became fewer and fewer. Sidonius Apollinaris complained bitterly of spiritual loneliness. The philosophers Hypatia and Proclus lived alone and abandoned. Her disciples did not even defend Hypatia from the Alexandrian mob. One can find bits and pieces of late statues of a high standard, but they are insignificant in number compared with the hack-work. That lowering of taste and substitution of the eclectic for style was a real decline in art. But whether or not it was combined with catastrophic destructions it was a detail of the historical processes and ethnic migrations.

So it was everywhere. In Byzantium the fourth-century poet John Chrysostom came out as a rival of the almighty empress, and after his death was honoured as a saint. And in the eleventh century all influence was concentrated in the hands of the assembly (of top officials) which destroyed the hero-defenders of the homeland, and there were no poets at all.

In the Arab Caliphate scholars were respected, and memorials of architecture were not destroyed, but the *shuu'biyya*, the creative interpretation of the Koran, gave way to dogmatic pedantry. The Sung dynasty dealt similarly with intellectual diversity in China, where all religions were banned, and only Confucianism was tolerated. Decline of culture is obviously a general process.

Now let me pass to a summing up.

In the phase of ethnic inertia capacity to extend area is reduced and a time of affecting the landscape of one's own country sets in. The technosphere grows, i.e. the quantity of needed and unneeded buildings, articles, monuments, and utensils increases, obviously at the expense of natural resources. Some of these changes are relatively harmless distortions of nature (irrigation ditches, monoculture fields, vast herds of cattle). Left without attention they will be restored to the natural geobiocoenoses. But where natural materials are confined within the shackles of strict forms, self-development is prevented, being replaced by slow but steady destruction, which is often irreversible. Only archaeologists need such ruins. They study the traces of fading, not flourishing ethnoi, that leave to the ages shards of vessels made of fired clay, fragments of Babylonian tablets with cuneiform writing, pyramids, and the foundation of the Baalbek temple, ruins of mediaeval castles, and of Mayan temples in the jungles of Yucatan. The biosphere is capable of feeding people, but is not in a position to satisfy their striving to cover the planet's surface with rubbish removed from biocoenoses' cycle of conversion. In this phase, an ethnos, like Anthaeus, loses touch with the soil, i.e. with life, and inevitable decline sets in. The picture of this decline is deceptive. It wears a mask of well-being and prosperity, which seem eternal to contemporaries because they cherish illusions of inexhaustible natural wealth. But that is a consoling self-deception that is dissipated after the last, and this time fatal, down turn sets in.

The last phase of ethnogenesis is destructive. The members of an ethnos who are incapable (by the law of the irreversibility of evolution) of getting back into contact with the biosphere, pass to despoliation and rapacity, but that does not save them. Demographic decline begins, after which peripheral subethnoi remain, minimally linked with the main line of ethnogenesis. They either vegetate, as relicts, or create new ethnoi with different behavioural dominants. Then the process is revived, of course, if there is another impulse of drive.

The Phase of Obscuration

The 'twilight' of an ethnos. A distinguishing feature of 'civilization' is reduction of the active element and full contentment of the emotionally passive and hard-working population. But a third variant should also be taken into account, viz., the existence of people who are neither constructive nor hard-working, are emotionally and mentally defective, but who possess heightened demands on life. In heroic ages of growth and self-manifestation these individuals have few chances of surviving. They are bad soldiers, good-for-nothing workers, and the path of crime quickly leads, in rigorous times, to the scaffold. But in the easy times of civilization, with a general material abundance, there is an extra piece of bread and a woman for everyone. 'Life-lovers' begin to multiply without limit and, since they are creatures of a new mould, they create their own imperative, viz., 'be like us', i.e. do not aspire to anything that cannot be eaten or drunk. Any growth becomes an odious phenomenon. The industrious and diligent are ridiculed, and intellectual pleasures arouse fury and frenzy. In art there is a decline in style, in science original work is ousted by compilations, corruption becomes the rule in public affairs, in military affairs soldiers impose their will on officers and generals, threatening mutiny. Everything is for sale; no one can be trusted, and a ruler must, in order to govern, employ the tactics of a robber baron—suspect rivals, and track them down and kill them.

The order established in this stage, which it would be correct to call 'obscurity', cannot in any way be considered democratic. In it, as in preceding stages, groups predominate; only the principle of their selection is different, and negative. Capabilities are not valued, but rather their absence, ignorance and not education, unscrupulousness and not firmness of opinion. Far from every Philistine is capable of meeting these requirements and the majority of the people therefore prove defective from the standpoint of the new imperative and consequently unequal. But there is then retribution, because the life-lovers only know how to live parasitically off the fat of the body of the people overfed during 'civilization'. They themselves can neither create nor preserve. They corrode the body of the people, like cancer cells corrode the human organism, but having won, i.e. having killed the rival, they themselves perish.

Other qualities than those so carefully cultivated are needed, in fact, in order to protect the family and bring up children. Otherwise the children will make short work of their parents as soon as it

is convenient for them. Thus, after obscurity begins to triumph its bearers disappear like smoke, and there remain descendants of the original bearers of the static state, who have survived all the scrapes, and who begin to teach their children to live quietly in the ruins, avoiding conflicts with neighbours and with each other. Anatomically and physiologically they are full-blooded people adapted to the terrain, but their drive is so low that there is no development of the ethnos. Even when someone with drive is born among them, he applies himself among neighbours and not in the homeland. There are two possibilities: either those remaining alive drag out a pitiable existence as a relict ethnos, or they fall into a melting pot and, in favourable circumstances, a new ethnos is fused from several fragments, only vaguely recalling its origin, because the date of its new birth is far more important for it. And once again the process goes through the same stages, unless it is accidentally cut short by an outside, external influence.

There are fewer striking examples to illustrate the phase of obscurity than for other stages. The people of Europe, both Western and Eastern, are not so old as to fall into a state of debility, so I must turn again to antiquity for examples.

From the golden age to decline. Let me begin with the clearest example, the Mediterranean in the fourth century B.C. It was then that the aggression of the warlike Celts petered out; in the preceding century, they had conquered lands in Spain and Italy and had inflicted heavy losses on the growing culture of the Etruscans. In that same century the military and economic power of Carthage was flourishing; and the complex state system of Rome, liberated from Etruscan yoke, was taking shape. But the Greeks played the main role. They were experiencing their most brilliant age and being converted from a mosaic ethnos into a superethnos.

The Hellenist superethnos, which included Macedonia, stretched from the Indus in the east to Spain (Saguntum) and Gaul (Massilia) in the west, having overawed the Punic and Etrurian ethnoi competing with it. Although both the latter preserved their independence, they lost hegemony at sea. But the drain of the element with drive to the frontier, together with the wars suffered in recent time (the Peloponnesian, Theban, and Macedonian) made Hellas less resistant, which is clear from the fact that the initiatives of Athens and Sparta began to be seized by the semi-savage hill-men of the Epirus and Aetolia, and the modest peasants of Achaëa. Not that they had accumulated special power; their strength proved sufficient, however, with the isolation of the former

centres of the drive, for them to join the struggle for hegemony with hope of success. The same process, originating in Italy, elevated the robber republic on the Seven Hills to the Eternal City of the ancient world. And here it may not be out of place to make an important observation. The Romans' main rival, the Samnites, who were not inferior to them in courage, had a custom of supplying their young men as mercenaries sometimes to Carthage, sometimes to the Hellenic cities of Taras (Tarentum), Syracuse, etc. Naturally, most of them went looking for adventure and wealth and perished; and if they returned they were already worn out and exhausted. The Romans, on the contrary, kept their youth at home, although it gave them no little trouble. They thus preserved their stock of drive and employed it in the wars with Pyrrhus and Hannibal, which gave Rome power over the Mediterranean. Nevertheless this fund of energy was frittered away, which led to the reform of Gaius Marius, viz., the formation of a professional standing army in which iron discipline made it possible to employ people of sub-drive as rank-and-file soldiers. The structure of the Roman ethnos disintegrated. Two subsystems developed, the Senate and the army. Under Julius Caesar the army won, and won again after his death, under the command of Octavian and Marcus Antonius. During the next three centuries the army drew into itself the whole of the population of the Roman Empire with drive, and civil wars were waged between military groupings made up of members of the various ethnoi forming part of one superethnos, the Pax Romana.

The first war broke out in 68 A.D., when the *propraetor* of Gaul, Julius Vindex, a descendant of the Aquitanian kings, led an uprising of his fellow-tribesmen thirsting to free themselves from the power and exactions of Rome. The Spanish legions joined the rebellion, proclaiming Servius Sulpicius Galba emperor. But before Galba crossed the Pyrenees, the legions stationed on the Upper Rhine came to blows with the Aquitanians. The leaders of the two armies did not think of fighting, but their legionaries did not listen to them; 20 000 Aquitanians fell in battle, including Vindex.

Galba entered Rome at the lead of the Spanish legions and seven months later was killed by the *Praetorian Guard*, natives of Italy, who proclaimed emperor Otho, one of the late Nero's boon companions. But the legions of the Lower Rhine rebelled, forcing their chief Vitellius to go with them to Rome. In A.D. 69 these provincials broke the *Praetorian Guard*. Otho plunged a dagger into his breast. But the Syrian and Egyptian legions did not agree to recognize Vitellius and forced their commander Vespasian to lead them in the struggle for power.

They were joined by the legions stationed in Moesia, Pannonia, and Illyria, in order to avenge Otho on Vitellius. The commander of the German legions, Caecina, tried in vain to surrender. The soldiers put him in chains, and went into battle. Vespasian's army was victorious at Cremona, pillaged the town, and killed all its inhabitants because they were Roman citizens and could not be sold as slaves. Vitellius renounced power, but the troops who were in Rome did not accept his abdication, attacked the Capitoline hill, killed Vespasian's brother, the prefect of Rome, and fought each other until they were killed. And the people of Rome went over to the next victor.

It is clear from this list of evil deeds that the Roman professional army had detached itself from the Roman people and had become directly hostile to the Senate. But it, too, did not constitute a single whole, being split into several territorial consortia. The legionaries' stereotype of behaviour and that of peaceful citizens diverged the more that provincials who had broken their ties with their homelands and fellow-tribesmen for the sake of a soldier's life were taken into the army.

The thirty legions that the Empire had in A.D. 70 had been reinforced not only by call-up and an influx of volunteers, but also by natural growth. In peace time the legionaries worked plots of land for their own needs and, although they did not have the right to marry, they took bedmates whose children also became soldiers. The soldiers thus constituted a subethnos in the Roman Empire whose significance grew year by year, and the stereotype of behaviour altered in accordance with the conditions of life military service.

However badly Roman citizens treated their standing army, and however brutally the soldiers made short work of the peaceful population whenever it suited, one must say that the provinces grew rich and the capital enjoyed itself only thanks to the legions. And the capital amused itself vilely with gladiatorial battles, the baiting of animals, execution of Christians, the insulting of female prisoners, and the sale of male and female slaves; such was the Roman stereotype that excites the admiration of lovers of classical antiquity.

Yet, for all the horrors described, the imperial age of Rome must be considered the inertial phase of ethnogenesis. The Roman people expended their own drive in maintaining their political system. Whereas surplus drive had broken the rigid social system by means of civil war in the second and first centuries B.C., and the energy and drive was as much as was needed at the turn of the eras

to maintain order and peace in the system, a need had arisen already by the end of the first century A.D. to reinforce the army with people of fighting efficiency, i.e. provincials with drive. That was the beginning of the end.

What happened? Did the legions become weaker? Or the Empire's neighbours stronger? Perhaps both at the same time. That, too, is important to me.

Of course, the part of the Roman ethnos (which coincided at that time with the antique Graeco-Roman superethnos) that formed part of the legions lost drive more rapidly than it would from battle losses only. During each of the many revolts the soldiers avenged insults on the junior officer corps, i.e. killed those officers who maintained discipline, which meant that there was an extermination of the most responsible, resourceful, efficient, and dutiful people, whose places were taken by unprincipled, venal persons. That degradation was noted and described as regards the moral and cultural standards of the 'soldier' emperors, but it is more important for my theme to note that it affected all strata of the army, which at that time involved the whole drive element of the Roman ethnos, because only in the army could an ambitious youth make a career, even at the risk of his life.

Inertia maintained the existing system until the end of the second century A.D., and was exhausted. Then the time for a new phase arrived.

Bloody gloom. The phases of ethnogenesis pass so smoothly one into the other that they are unnoticeable for contemporaries as a rule. But it is clear to the historian that the transitions coincide with important events whose significance is only apparent from a distance.

The decisive turning point in the fate of the Roman ethnos occurred in A.D. 193, after the mad emperor Commodus was assassinated.

It is worth concentrating attention on those events. The monster born in the purple lost a tablet in his favourite concubine's bed with the names on it of those doomed to death. Her name was on it, too. She showed it to the other named victims, and a specially invited gladiator Narcissus finished the scoundrel off. The Senate appointed a venerable old man, Pertinax, emperor. The Praetorians recognized him, since he was known as an honest, brave, efficient administrator, and a well-meaning, just, and meek ruler. Those condemned, though guiltless, were released from prison and brought back from exile. Informers were punished. Order was re-

stored in legal proceedings and management. Pertinax halved expenditure on the palace, and sold off the slaves with whom Commodus had debauched himself. The country, it seemed, was reviving within only three months.

One day a crowd of Praetorians came to the palace. The sentries admitted them. They killed Pertinax. The people wept. So ended the attempt to save the fatherland.

The Praetorians proposed to give the throne to whoever would pay them most. It was bought by a rich Senator Didius Julianus, who had been the ruler of remote provinces for a long time, and who had stolen much money there. His authority got no support. The Senators and equites hid their feelings but the mob quarrelled with them. There was no relying on the Praetorians. The Guard was no longer the valiant legionaries who had defended their leader Otho in A.D. 69 from Vitellius' terrible border troops. They had become so corrupt over 124 years that no one believed them or respected them.

The proconsuls of the provinces immediately opposed the Roman legionaries. In Britannia Claudius Albinus, a friend of Marcus Aurelius and Commodus, who hid all his unnatural vices under the cloak of a philosopher, proposed to his troops to restore freedom. In Syria Pescennius Niger, an efficient and affable ruler, popular in his province and in Rome, had many chances for success. In Pannonia Septimius Severus, a Roman equite and native of Africa, ambitious and secretive, seized the initiative. He exploited the factor of speed. Being close to Rome, he entered the eternal city without a fight. Didius Julianus, deserted and betrayed by the Praetorians, was killed in his palace.

But the Praetorians, who had gone out to meet the usurper with laurel wreaths, miscalculated. Septimius Severus ordered his seasoned troops to disarm them, and then sent them off to various provincial cohorts. Once conquered Illyria and Thrace thus gained the upper hand over Rome. After bloody victories over Niger and Albinus, won thanks to the courage of the Thraco-Illyrian legions which, unlike the Syrian and British legions, were recruited in their own provinces, Septimius Severus improved the position of the soldiers and increased the army by natives of the eastern provinces (Illyrians, Thracians, Galatians, Moors, Iazyges, Arabs, etc.). As a result almost the whole Roman army proved to be made up of foreigners at the beginning of the third century A.D. That shows that the Roman ethnos, which had ceased to supply volunteer defenders of the homeland, had lost drive. The structure, language, and culture of the Empire still remained, through inertia, at a time when

real Romans could be counted by separate families, even in Italy, which was settled by immigrants from Syria and descendants of war-prisoner slaves (colons).

The military dictatorship of the Severans prolonged the existence of the Roman system for forty years; then things began to happen. In A.D. 235 the soldiers killed Alexander Severus and his wise mother Mamaea, and gave the throne to a Thracian Maximinus. The Proconsul of Africa, Gordianus, a Roman of long standing, together with his son, opposed Maximinus. Both were killed. In A.D. 238 the soldiers killed Maximinus, and the Praetorians the two consuls Pupienus and Balbinus. The Praetorian prefect Philip the Arabian killed Gordianus III in A.D. 244, and was himself killed by Decius in 249. After the death of Decius in battle with the Goths, the soldiers betrayed and killed Gallus, and then Aemillianus. His rival Valerian, whom the army refused to obey at the decisive moment and demanded should surrender to the Persians, died in a 'tower of silence'. The Empire split into three parts: in the West there was the usurper Postum, in the East the Palmyran king Odaenathus, who repulsed the Persians; while in Rome the following were successively murdered: Gallienus, Aurelius, Claudius II, Quintilian, who reigned for 17 days, and finally Aurelian, who restored order and united the Empire in A.D. 270 before the emancipated slave Mnestius (murdered in turn) killed him in 275.

Then, in turn, the elder consul Tacitus, his brother Florian, the Pannonian officer Probus, Carus, and Numerian were murdered. Only in September 284 was Diocletian proclaimed, who took advantage of the murder of his rival Carinus (son of Carus) in 285 by his own comrades-in-arms, and became emperor.

This long list of regicides helps us understand the course of ethnic development when we take into account that far more ordinary people were killed. Before us is the phase of obscurity, when a capable military leader trying to restore discipline for the sake of victory was regarded as the worst enemy, worse than the real one. Instinctive reactions (irritation, greed, laziness) not being counter-balanced by lost drive, made the Roman army a crowd of villains and traitors. And it was not that there was no determined general or clever diplomat for half-a-century. There were plenty of them in that vast country, but there were few true executives. And since the number of them was diminishing all the time, because they were killed along with the emperors, the stereotype of behaviour also changed, i.e. the phase of ethnogenesis. The Roman ethnos had died and rotten before perishing from the invasion of barbarians.

Diocletian understood that only a backward province could save him. He therefore divided care for defence of the frontiers with three companions, established his residence in the Asia Minor town of Nicomedia, far from Rome, and surrounded himself with troops from Illyrian, Thracian, and Moesian mountaineers who had not yet lost their fighting capacity. He created a bureaucracy, because he did not, with every justification, trust the corrupt society. He persecuted Christians and Manichaeans because these communities lived by their own laws and not his. In short, he exploited the inertia, not of the *ethnos* (because that was exhausted) but of the culture created by preceding generations. But he, too, capitulated to the force of things, since he became the emperor of a state (*dominus*) and not the head of a republic (*princeps*).

Diocletian's state was Roman only in name. In essence it was an association of all the countries of the Mediterranean basin that completely ignored the ethnic principle. A large part of the Empire's population were drawn into the whirlwind of obscurity, i.e. lost its ethnic affiliation, having exchanged it for participation in the superethnos. These people were bound only by a cultural tradition expressed in skilful administration, which meant that true patriotism was replaced by obedience to magistrates appointed from a number of chance persons who had connections and had lost conscience. Such a system could not be strong. But it held together in spite of the efforts of its own population because viable consortia had arisen in it. They were hostile to the traditions of the Roman *ethnos*, but not to the dominant, in spite of the latter's not caring for them. And soon after the death of the first *dominus*, these new forces galvanized the corpse of ancient Rome.

The substitute. For all that, the Roman army, in spite of the tragic position, held the frontier along the Rhine, and Hadrian's Wall in Northern Britannia, and coped well with the Numidians and Moors. Things were more serious in the east. Goth vessels penetrated the Aegean; Persia, though disposing of only a fiftieth of the resources, successfully waged war in Mesopotamia; and it needed exertion of all the forces of the Roman Empire to crush the Dacians and the Judeans in the second century A.D. In fact, only the Illyro-Thracian units and their leaders who became emperors, from Aurelian to Diocletian, saved the Empire in the third century. These leaders included the famous general Aetius, who is called 'the last Roman'. But matters were not so simple.

Anyone who joined the legions in Thrace and Illyricum obviously belonged to the number of people of the same stamp as those

who joined the Christian communities. Their dominant was of course different, but for my analysis that has no significance. What is important is that in interpolating the impulse of drive I take in just those areas of the Balkan Peninsula where it should have occurred, theoretically speaking, and get confirmation of it there. Consequently Aetius and his legionaries should be considered the 'first Byzantine' rather than the 'last Roman'. I thus establish that, from the second century A.D., there was an upsurge in the activity of the population in the eastern provinces of the Roman Empire and in certain areas lying to the north of them. Outside the Empire, this was the beginning of the ethnogenesis of new peoples (Goths, Ants, and Vandals). Inside the Empire this rise in drive acquired an original dominant, the creation of confessional communities on a mixed ethnic basis, either Christian or gnostic and pagan (Neoplatonic). It is customary to say that Christianity was the religion of the slaves. That is partly true, but it loses sight of the fact that the slaves in their overwhelming majority were replenished by prisoners of war. Marriages between slaves of different tribes were permitted by their masters, but mixed marriages with those of other faiths were prohibited by the leaders of the Christian communities, which I venture to call consortia. Thus hybrids which, as we know, possess heightened lability, were grouped together in the Christian consortia. Such forms are usually unstable and disintegrate in two or three generations, but there was an additional factor at work here which gave Christian communities stability, viz., immense drive. Thanks to matchless sacrifice and in spite of cruel persecution, the Christian community, already given organization (the Church), replaced the imperial power in A.D. 313.

Christians were the most loyal subjects of the Emperor Diocletian, and the most disciplined soldiers, but when pagan sacrifices were made in the camps, at which the legionaries had to be present, they shielded themselves by the sign of the cross, which in Diocletian's opinion destroyed the force of the ritual. In A.D. 303 he started a persecution of Christians which was the last in the Roman Empire. It lasted only two years, because Diocletian abdicated in 305 and retired to Illyricum where his villa was as big as the town of Spalato (Split). He died in 313 after learning that his wife and daughter had been brutally murdered, and that something worse than death lay ahead for him.

Diocletian was a bureaucratic genius. He saw it was impossible to govern a country from the Euphrates to Gibraltar and the Tweed without an executive administration. He divided the Empire into four parts, making his comrade-in-arms Maximinus his colleague,

also bearing the title of Augustus, while Galerius and Constantius Chlorus were appointed Caesars. After his abdication, Galerius, the initiator of the persecution of the Christians, became Augustus of the East, and the humane and gentle Constantius Chlorus, whose son was Constantine, Augustus of the West. The persecution of Christians ceased in Gaul and Britannia, since Diocletian edicts were simply not enforced.

In A.D. 306 Italy rose against Galerius; the leader of the uprising was the son of Diocletian's Caesar Maxentius, a coarse, giftless, dissolute man. But when Galerius tried to pacify Italy, he was defeated and died in 311, leaving power in the Balkan Peninsula to his friend Licinius. Maxentius' brother Maximinus ruled in Asia Minor, Syria, and Egypt.

Both brothers were such that it seemed that the times not even of Nero but of Caligula, Commodus, and Caracalla had returned. Both were consumed by hatred for Constantine and Licinius. War broke out in A.D. 312-313. Those who were aided by the Christians—Constantine and Licinius—won. Yet the strength of authority, numerical superiority, economic resources, and even the influence of old traditions were with Maxentius and Maximinus. But they were killed. It happened like this.

In 312 Constantine crossed the Alps with 40 000 troops, mainly Gauls, against an enemy with a four-to-one superiority. He won several battles in the valley of the Po, reached the Tiber, and there clashed with the army of Maxentius.

Constantine raised a banner on which a radiant cross was depicted. His Gallic cavalry routed Maxentius' Roman cavalry on both flanks, while the veteran border troops cut down the Praetorians. Maxentius drowned in the Tiber while fleeing.

Licinius had married Constantine's sister, and the two Augustuses published an edict on tolerance in Milan, which granted Christians freedom of worship. Licinius then went to the East, where Maximinus was invading Thrace from Syria. Licinius' Illyrian soldiers were more capable of fighting than Maximinus' Syrian legionaries who were a motley crowd. Licinius was victorious at Heraclea in 313, and Maximinus died, probably poisoned.

Having won, Licinius displayed the same cruelty to people who were not guilty of anything toward him but who happened to be in his power. In A.D. 315 he inspired a conspiracy against Constantine and then ordered the overthrow of Constantine's statues in the border town of Aemon. Constantine declared war and twice defeated Licinius' army, after which the latter sued for peace. Con-

stantine took Macedonia and Greece away from Licinius, leaving him the rest of the East.

The struggle between the two rulers was postponed, but both understood that it was inevitable. Constantine had the powerful support of the Christians of the whole Empire.

What remained for Licinius to do, who had also promulgated the Edict of Milan in his possessions in the struggle with Maximinus, thanks to which his soldiers had called on the aid of the 'Supreme God' and received it in the battle of Heraclea? But since Constantine's mother, Helena was a Christian, and he himself was the recognized leader of the Christian party, it was only left to Licinius to revive persecution. In 324 the armies of the contenders for absolute power clashed at Adrianople and Licinius' Thraco-Illyrian legions, vaunted for their bravery, which outnumbered the enemy, were routed. They lost a second battle on the other side of the Bosphorus at Chrysopolis. Licinius surrendered, having been given a promise of mercy, but within a few months he was strangled (A.D. 324). It is not worth pitying him; he himself killed innocent people. He should have shared the fate of the soldiers who perished for him, and not hidden behind the skirts of his wife, Constantine's sister.

That war did not reflect the rivalry of the old pagan ethnos with the new Christian one, but a struggle for predominance between two subethnoi of an already established ethnos, from which Byzantium arose. As for the descendants of the Romans who were not yet dissolved in the regenerated ethnic system, the phase of obscuratation had ended for them, and a time had begun when they could no longer act in any way. All that remained for them was to remember.

It is thus everywhere. The material cited is sufficient for a conclusion. The drive of the antique or Hellenic-Roman superethnos faded, being crystallized in a civilization capable of holding out against the pressure of neighbours through accumulated inertia. This system was blown up from within by a powerful excess or impulse of drive that took place in the region of Scandinavia, Eastern Europe, Asia Minor, and Syria. This localization shows that the phenomenon described has no connection with the social crisis of the slaveowning system and was not the fruit of the conscious activity of people who died not understanding why things had suddenly become bad for them.

Neither Diocletian's bureaucratic genius nor Constantine's political resourcefulness, nor Theodosius' military talents could stem the process and save the country. In the East where the new ethnos

took shape, that I arbitrarily call Byzantine, the barbarians were repelled; in the West they simply replaced the disappearing Roman citizens.

The same process occurred in Byzantium under the Angelus dynasty and ended with the fall of Constantinople in 1204. The outburst of patriotism in the Empire of Nicaea revived the ramshackle country for a time, but the process of ethnic decline continued, and even the courage of John VI Cantacuzene could not stop it. The Byzantine people disappeared, dissolved and deformed a long time before the Ottoman Turks broke into defenceless, or rather lacking the will to defend itself, Constantinople (5 May 1453).

The Achaemenid Empire perished from an external blow, and obscurity came later in the Near East. It facilitated victory not to Alexander the Great, but to Sulla, Lucullus and Pompeius, Titus and Trajan, and to Arsaces, the leader of the Saki who founded the Parthian Empire on the ruins of ancient Iran.

In mediaeval China obscurity arrived stealthily little by little. In the middle of the seventeenth century, the rotting Ming bureaucracy capitulated to the peasant rising of Li Tzu-cheng, and the latter was subsequently beaten by a blitz by a handful of Manchus, only just united by Prince Nurhatsi.⁵⁴ After that China was in a state of catalepsy for two hundred years, which gave European observers an excuse for regarding the temporary lethargy as an inseparable property of Chinese culture. This, in fact, was not the sickness of a growing culture, but the natural aging of an ethnos that had survived for more than a thousand years (A.D. 581-1681).

Strange as it may seem, the phase of obscurity does not always lead to death of an ethnos, although it always does irreparable harm to the ethnic culture. When it develops rapidly and there are no predatory neighbours near, thirsting for conquests, the imperative 'be like us' finds a logical reaction of the person 'Mine is the day!', with the result that the very possibility of preserving the ethnic dominant and of any collective measures, even destructive ones, disappears. Purposeful development degenerates into a kind of 'Brownian movement' in which the elements (individual people or smallish consortia that preserve tradition, even partially) get a chance to oppose the tendency to progressing decline. When there is even a little drive and inertia of the everyday norms developed by the ethnos in preceding phases, they conserve separate 'islets' of culture, creating a deceptive impression that the existence of the ethnos as an integral system has not ceased. That is self-deception. The system has disappeared, and only individual people and their memory of the past survive.

The phase of obscurity is awful because it is a series of breaks, be they even small. Adaptation to such rapid and constant changes of the environment is inevitably delayed, and the ethnos perishes.

It is thus clear that people with drive do not dislodge anyone from an ethnos, but by adding themselves and their deeds create a diversity that complicates the ethnic system. *And complex systems are more stable than simplified ones.*

Such is the mechanism of ethnogenesis, a natural process. And clearly, neither St. Augustine's idea of the City of God, nor the Hegelian longing for the Absolute, nor Jaspers' philosophical existence are applicable to explain this phenomenon.

After the End

The memorial phase. Memory of the past survives the inertia of the impulse of drive, but individual people are not in a position to retain it. Their efforts are not supported by contemporaries, though they are not fruitless. The works of poets are preserved as folklore, artists' masterpieces become the motives of folk art, the history of the feats of defenders of the homeland are converted into legends or ballads in which accuracy of description is counterposed to the genre.

We find such a picture in the Altai. Six tribes live there, the three northern ones of which are Turkicized Ugrians, and the three southern remains of ancient Turks. The Telesi are descendants of Turkuts, the Telenkites and Teleuts are tribes of the Teles group to which the Uighurs belong, and the Altai-Kizhi are a branch of the Naimans who came to the Altai in the twelfth century. All have a rich ballad epic, many of the subjects of which arose in the days of the Turkic Kaganate of the sixth to eighth centuries that perished in struggle with the Tang Dynasty. The Turkuts who saved themselves from the slaughter, hid away in the valleys of the High Altai, and there awaited the time of their rebirth in vain. They passed into a state close to homeostasis, but preserved their heroic poetry as a memory of the past.

The same memory of events not only of days of yore but also of the comparatively recent past (of the war with the Chinese in the nineteenth century) is preserved by the Kirghiz of the Tien Shan, the Jungar Oirats, the Pueblo Indians (Tewa), and many other, once powerful ethnoi, which have become small, not very numerous 'tribes'. Crystallized drive, or art, saved them from dissolution into

neighbours, from assimilation and the abasement associated with that.

Ethnoi that are in this phase of ethnogenesis always evoke a feeling of profound respect among ethnographers and 'harmonious' (in the sense of degree of drive) colonists who find a common language with the aborigines. But among people of sub-drive and rapacious people with drive they arouse a savage, unrestrained hatred that excluded any possibility of peaceful contact. That is especially clearly marked in the history of North America.

Most of the Indian tribes living between the Atlantic and the prairies had already experienced their dynamic period before the arrival of Europeans. An exception was the Iroquois, who had settled in the basin of Lake Ontario from the west not long before the arrival of Europeans, and possibly the Seminoles. Both bore the impress of drive and evoked the ferocious hatred of the white settlers. But the Algonquians, the old inhabitants of this territory, and the cultured Natchez in Louisiana, mercilessly exterminated by the French, were made a model of courage, honesty, loyalty, and other good qualities in European literature. So Fenimore Cooper and Chateaubriand depicted them. But as soon as the Europeans clashed with Indians with drive (Apaches, Navajo, Comanches), the image of the Indians was darkened. And the quiet, industrious Pueblo Indians did not get a just evaluation at all. European authors were more interested by their traditional architecture than by them themselves. And that was no accident. The Indian farmers were a very old people; much of their culture has been lost. The Algonquians preserved much but could not keep the drive without which it was impossible to maintain independence; consequently they were forced to make friends with the French and English. But the Iroquois knew how to defend themselves; only division during the revolt of the colonies destroyed them. Some of them sided with England, some with the Americans; and both slaughtered them.

There are very many isolated ethnoi, remembering and valuing their culture, but there are also subethnoi, removed from forward movement by the calamities of historical fate and consciously preferring to preserve the stereotype of their way of life, if only to preserve the memory, dear to them, of the 'beautiful past'. Even at the beginning of the nineteenth century the Old Believer communities in the Russian Empire lived that way. Under Catherine the Great the Old Believers were saved from persecution for their beliefs and could keep up the rites and rituals they considered 'old'.

That was a sincere delusion. They did not preserve the customs of the age of Andrei Rublev and St. Nilus of the Sora, but those es-

established by the middle of the seventeenth century when, after the Time of Troubles and the Polish and Swedish intervention, the reaction to everything foreign became very sharp. But having fixed precisely that moment in the intellectual and aesthetic life in Russia they did not want to reject it. They could have lived indefinitely in that way if they had not been eroded away by their surroundings, i.e. by living, pulsing reality, and the actually occurring processes of ethnogenesis.

And the opponents of the founders of Old Believerdom—the scaramouches—proved to be in the same position. Exiled in the seventeenth century to the north because their songs, dances, masquerades, and stories of the ballads drew people away from observance of fasts and Church rituals, these unfortunate artistes handed their art down to their children until folklorists collected them, i.e. until the middle of the nineteenth century. Happily, it was not too late. They succeeded in recording and publishing a great deal. So, thanks to the memorial phase of a tiny convicinity (not even a sub-ethnos), we Russians know that our forefathers were not savages, nor illiterates, nor dunces waiting for enlightenment from Europe. Because the illiteracy came later with the superceding of the old tradition by semi-literacy, i.e. in the nineteenth century.

The examples cited witness that after the end of the dynamic phases of ethnogenesis the surviving people by no means become worse, i.e. weaker, or more stupid, than those who up to then had constituted the overwhelming majority of the ethnos. It is not the people who have changed but the ethnic system's integrity. Earlier, along with the majority there had been a yeast of drive, exciting the system, interfering with everything, but giving the system, i.e. the ethnos, resistivity and a striving for changes. The ideal then, or rather forecasts for the distant future, were development, but now the ideal has become conservation. The aggressiveness of the ethnic system, naturally, disappears, and its resistivity is lowered, but the law of drive entropy continues to operate. Only instead of gains there are losses. And much in this depends on the character of the ethnic environment.

A subethnos that has lost the inertia of development is, of course, doomed, but the people that constitute it have a chance of mixing with other subethnoi within their ethnos. Here they are at home and nobody is going to kill them. But a defenceless ethnos surrounded by members of other superethnoi is a picture that chills the blood. The English did not consider the Tasmanians people, and rounded them up and got rid of them. The Argentinians carried out a 'shoot' of the Patagonians, and sold the Tierra del Fue-

gans blankets infected with smallpox. The Bantu Negroes caught Bushmen in order to use them for heavy work, but were themselves made slaves by the Boers. In order to repel a merciless enemy an ethnos had to expend the remains of drive; for the bravest resisted, i.e. the most vigorous and energetic. But people of sub-drive hid themselves where they could, thanks to which they prolonged their life but without any hope of victory. That is the mechanism of the tragedy of the ethnoid that evolutionist ethnographers have christened 'primitive'.

But even if these islets of culture in the sea of ignorance and ferocity were able to hold out and not sink into chaos annihilating itself, they are powerless against the last relict phase preceding homeostasis, in which the descendants of members of the most sluggish convicinities that have long ago lost drive, are guided by the imperative 'Troll! To thyself be enough!'⁵⁵ because they are no longer members of an ethnos, as a system, but like the trolls inhabiting undergrowth and gorges (according to the beliefs of the old Norwegians); the phrase I have taken is from Ibsen, because it is very suitable for them. It means: 'Try not to get in the way of others, do not pester them, but do not grieve yourself, and have pity on nothing.'

The extermination of such nice, innocent people, honest, hospitable, and benevolent, is like the murder of children, i.e. it is a crime that is unforgivable.

The transition to nowhere. Another way out would seem to be possible, viz., isolation. I would like to think that, in favourable conditions, an ethnos could, without outside pressure, endlessly preserve its original culture and developed stereotype of behaviour. Even if everything around crumbled to dust or was ground to powder by impulses of drive, the ethnos would reproduce itself: so many naive people think.

But the fact is that people in the last phase of ethnogenesis lose the sense of time along with memory of the past, at first outside their own individual or family biography. In the final stages they are limited to recording the time of year and even simply day and night. I myself observed that among Chukchi: the change of winter to summer was outside their ken. At the same time the Chukchi are fine hunters, have a developed mythology, and are very brave and ingenious. The absence of a chronology by no means prevents them from living.

Europeans who have associated closely with the Pygmies of Central Africa have painted a similar picture. A Pygmy does not

know how old he is because a year is too long a period for him and he has no need to count his years. In other things Pygmies are very intelligent, orientate themselves beautifully in the tropical forest, where not only Europeans but also Bantu immediately lose their way. The Bantu live in close contact with the Pygmies, employing them as guides, for which they supply them with iron, because the Bantu are wonderful smiths. And what is most important for my theme: it is necessary to pay the Pygmies for their services, but only after they have done the work, without making an advance, because they work only in order to satisfy a pressing need or fancy. Here is a very graphic example.

The Pygmies know what no one except them knows, viz., how to build a bridge across a wide river from lianas. A narrow river can be waded, but a broad one is dangerous, because of crocodiles. So it is necessary to build a bridge, and the sole material is lianas and two trees, one on one bank and one on the other. Here is how the Pygmies do it; they tie a liana to a palm-tree, and a youth clings to it. They swing him so that he flies to the opposite bank and catches hold of another palm there; if he misses and does not catch it, the liana flies back, and he may be killed against the bole of the first palm. It is a very dangerous business but they know how to do it. Then they pull other lianas along the first, and make a wonderful suspension bridge. An American cameraman wanted to film the building of such a bridge, and was acquainted with a Pygmy who knew how to do this dangerous work. The American promised to pay him well if he would demonstrate his skill before the camera. But the Pygmy replied: 'No, I won't do anything; I don't need anything from you. I've already worked for you and you gave me a knife. There is the knife; you gave me a kettle — there it is; you even gave me a chisel — very good, thank you. But I do not need anything more; why should I risk myself?' 'So just in case'. 'What? What's in case; I don't understand what you are saying, stupid white man.' Then the American, for all that, hit on an idea. He learned that this Pygmy wanted to marry, but had to pay bride-price. A woman there is a valuable, not as with us; it is necessary to pay for her and to respect her; a woman is a great matter. He said: 'I will buy you a bride, if only you will do it.' And the Pygmy made a bridge and got a bride.

But the concept 'a stock for the future' is as foreign to Pygmies as the past before the birth of a given Pygmy. Neither the one nor the other interests him. Contact with the Bantu supports the Pygmies, stimulates them, without thereby depriving them of their accustomed geographical environment, because no one ever en-

croaches on the tropical jungle. Thanks to the symbiosis established the Pygmies have survived for centuries.

It thus turns out that ethnoid that have lost past drive can exist at the expense of the drive of a neighbour ethnos passed to them not sexually but through systems links. Symbiosis is a complicated system beneficial for both parties. The sole danger in it lies in attempts to translate the ethnic contact into a modus of assimilation, but that is always a pain of age of the inertial phase when people begin to invent things instead of studying the reality around them. No one has yet found a more successful variant than that existing in nature.

Thus, even in the final phases of ethnogenesis there is a need for drive, even though borrowed. That is why drive impulses not only destroy ethnoid that are in their neighbourhood, but also save them.

But when an ethnos in this phase is completely isolated, and an impulse of drive passes right by their habitat, an even sorrier end sets in. Let us turn to the facts, because no one wants to believe logic.

On the Little Andaman Island the small Negrito tribe of the Onghies lives in a marvellous climate and luxurious nature. No one has ever done them down. A reservation has been established there and not even tourists are admitted. The inhabitants are peaceful, friendly, honest, and very clean. They are food-gatherers and fishers. Illnesses are a rarity among them, and if there is a case the warden of the reserve gives help. It would seem a paradise—but the population is declining. They are simply too lazy to live. They sometimes prefer to starve than hunt for food. The women do not want to bear children. The children are taught only one thing—how to swim. The adults want only one thing from the civilized world—tobacco. For all that the Onghies are very sensitive to justice and do not bear humiliation. Their women are chaste, and when a visiting Burman tried to make love to them, the Onghies killed him, and then reported that to the authorities not as an offence but as an establishing of order. It goes without saying that no question of punishment arose. Rightly! One shouldn't poke one's nose into the affairs of another ethnos.

But there was something strange about this. The director of the Anthropological Department, an educated Indian named Choudhary, told the author of this story, Suresh Vaidya:

Their [the Onghies'.—*Ed.*] way of life is what mankind lived twenty thousand years ago. For them nothing has changed. They eat what nature gives, and for warmth they depend on the sun and the fire.³⁶

That is the strength of the hypnosis of an uncritically accepted evolutionary theory of ethnogenesis. And how, in the opinion of the Indian scientist, did the ancestors of the Onghies get to the Andaman Islands? For they must have known not just coasting navigation. And they hardly drifted by chance across the very stormy Indian Ocean. Bows and arrows would have had to be invented, or borrowed from neighbours. Their marriage customs, which forbid a second marriage even in the case of early widowhood, and limit marriage with close relatives, are by no means primitive. The Onghies' language has not yet been studied, but when it is it will probably turn out that they have recollections of ancestors, myths, and tales not yet quite forgotten. But the life tone of the Onghies has been lowered. A quarter of the young women are barren. If that is how matters stood twenty thousand years ago, the ancestors of the Onghies would long have been extinct.

No, the Onghies, and ethnoi like them, are not children, but oldsters. People without drive are less adapted to life on Earth than animals. Those in stable, favourable conditions do not die out. Even the crocodiles on these same Andaman Islands, learned to keep under cover when hunters with guns appeared. They did not fear the aborigines with bows and arrows.

At that level of drive ethnogenesis ends.

But besides the direct processes of ethnogenesis lying in the biosphere and therefore not initiating phenomena of destruction, there is a distortion of development in which irreversible simplifications of the ecosystems arise. They can be understood as an ethnic formation with a negative sign; but that calls for special discussion.

An experiment in constructing a schema. Study of the biosphere as a systems entity encounters great difficulties. The traditional methods of the natural sciences, which make it possible not only to describe processes but also to establish their genesis, prove not to be exhaustive because of the absence of datings, even not very rigorous ones. It has been readily noted, for example, that as a consequence of shifting of the path of cyclones, protracted, age-long droughts set in in a certain region, and as a consequence of that the character of the vegetation and consequently of the fauna, was altered, but it is impossible, without an absolute chronology, to establish the dates of the beginning and end of the phenomenon. Chronology is the business of history but, alas, historians have dodged doing their job.

And that is not by chance. History as the science of events in their connections and sequence, had completed its accumulative period by the end of the eighteenth century; then a need developed for its interpretation, which found completion in historical materialism.

But disclosure of the social patterns, viz., the progressive development of the productive forces and relations of production, described only one aspect of a multi-faceted phenomenon, and man's relationship with the biosphere remained within the jurisdiction of dialectical materialism. Historians were not prepared for that division, and gave themselves up to refining the details in communications of the sources. In that connection, however, the contours of the main object of ethnic history, viz., the discrete centuries-old process of ethnogenesis, and its beginning and end, were inevitably lost. That led to a substitution of numerous descriptions of 'Brownian movement' in history as its real development, in place of real historical analysis. But even a drop from a cloud does not fall straight down.

No protracted movement or motion is simple. It includes a number of fine deviations that compensate each other.

But imagine an observer who is studying not the whole trajectory of the falling of a drop but any two centimetres in the middle of its



Brownian movement
of a settling drop

path. He will inevitably conclude that Newton's law is false; for the drop, according to his observation, does not just move down but to the side, and often upward. His conclusion is false but logical, because the mistake is latent in the posing of the problem, which admits the right of the investigator to narrow the theme without coordinating it with surrounding problems.

But don't say that that does not happen! A similar method, leading to obvious fallacies and errors, was the trouble with Thor Heyerdahl's A'Khu.

The interpretation presented aimed not so much at clarifying history as at understanding it as a means of deciding problems of natural science, in particular of study of the biosphere. I therefore suggest a hierarchy of approximations to the reader, which makes it possible to observe the principle of scale and employ the whole of the needed historical material (see Table 3).

By using the table of successive approximations one can find the place of an ethno-genesis, experiencing the effect not only of the biosphere but also of spontaneous social development. This effect is mediated by the so-called 'logic of events', i.e. by the section of history from which it began to be studied (wars, diplomacy, internal revolutions, conquest of power, and so on). This material is abundant but its use calls for strict observance of scale so that unimportant events are not ranked together with major ones. The fate of separate individuals is therefore placed two orders lower than the fate of social systems (see Fig. 3).

The variation of an ethnic system's drive deserves special attention. A rise in the drive of a whole ethnos, but not of the individuals who compose it, occurs uniformly as a rule: growth of the function D , fluctuations of D at certain levels, during overheating, a steep

Table 3

TABLE OF APPROXIMATIONS TO THE STUDIED OBJECT			
degree of approximation	observation from	form	problematic and method
1	Biosphere	Ethnosphere	Geographical
2	Ethnosphere	Superethnoi	Culturological
3	Superethnos	Ethnoi	Ethnological
4	Ethnos	Sub-ethnoi	Politico-historical
5	Sub-ethnos	Consortia (people and families)	Ethnographic
6	Consortia (families or biographies of peopla)	Episodes	Biographical
7	Episodes	Information of sources	Philological

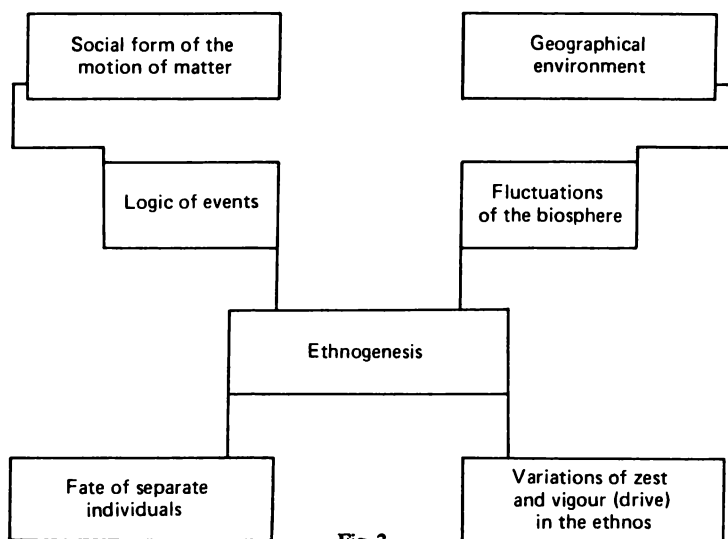


Fig. 3

IDEALISED RATE OF FUNCTION D, CHARACTERISING THE PROCESS OF ENTHNOGENESIS

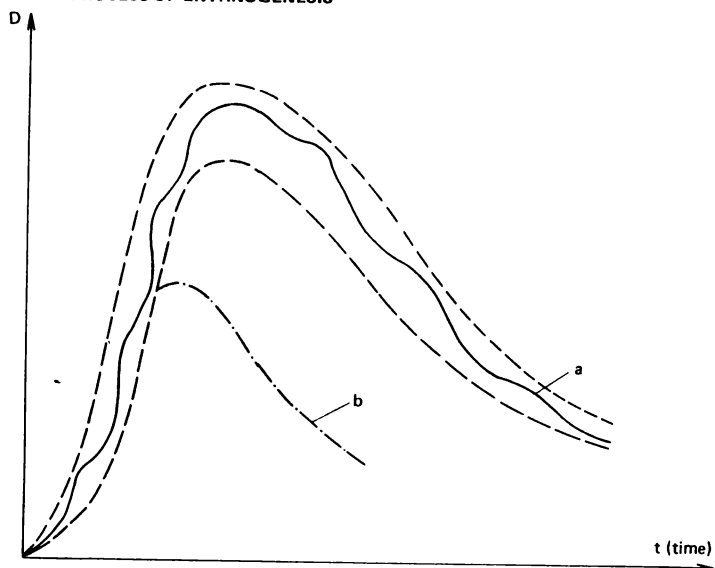


Fig. 4

short fall during a break, and a smooth inertial phase. The movement of the level of D is shown by the unbroken line marked *a*. Variations of the acme phase are shown by the broken line, and a sudden break and decline (usually caused by a blow from outside) is marked by the letter *b* (see Fig. 4).

In conclusion, as a resume, I propose a table of the generalized content of the whole conception of ethnogenesis, in its substantial part.

TABLE OF THE PHASES OF ETHNOGENESIS

Phases	Imperatives	Down turns
1. Initial combinations of ethnoi and the terrain of a region	Diverse	
2.	'It is necessary to correct the world, because it is bad'	Take-off
3. The phase of ethnic formation and rise	'Be what you should be'	
4.	'Be yourself'	Transition to the acme phase
5. Phase of ethnic existence: starts and failures	(the same, with retention of the former imperative)	
6.	'We are tired of the great'	Partial break: transition to inertia
7. Inertial phase	'Be like me'	
8.	Loss of former imperatives	Decline, transition to obscuratation
9. Phase of obscuratation	'Be like us'	
10.	'Mine is the day!'	Collapse and crash
11. Memorial phase	'Remember how fine it was'	
12.	'Troll! To thyself be enough!'	Transition to homeostasis
13. Homeostasis leading to extinction	Forgetting of the past	Possible return to a secondary combination of ethnoi, and starting point for a new ethnogenesis

NOTES

¹The biological propositions introduced here are the result of talks with Dr. B.S. Kuzin, to whom I proffer my thanks for his advice and explanation of particularly specialized problems.

²G.I. Akinshchikova. *Somaticheskaya i psikhofiziologicheskaya organizatsiya cheloveka* (The Somatic and Psychophysiological Organization of Man), Nauka, Leningrad, 1977, p 94.

³*Ibid.*, p 99.

⁴P.V. Simonov. *Vysshaya nervnaya deyatel'nost' cheloveka* (Higher Nervous Activity of Man), Nauka, Moscow, 1975, pp 31-32.

⁵Poets contrived to write in two or three languages, or in a mixture of them.

⁶A. Müller. *Der Islam im Morgen und Abendland*, Vol. 2. Historischer Verlag Baumgärte, Berlin, 1887, p 641.

⁷A chimera is a demon with the head of a lion, the body of a goat, and the tail of a dragon. Figuratively it is a combination of elements not organically united.

⁸V.I. Vernadsky. *Khimicheskoe stroenie biosfery Zemli i ee okruzeniya* (The Chemical Structure of Earth's Biosphere and Its Environment), Nauka, Moscow, 1965, p 270.

⁹*Ibid.*, § 33.

¹⁰*Ibid.*, p 283.

¹¹M.N. Sviridonov. On the Leading Edge of Space Science. *Priroda*, 1966, 8: 112.

¹²V.I. Vernadsky. *Op. cit.*, § 206.

¹³I.M. Sechenov, I.P. Pavlov, N.Ye. Vvedensky. *Fiziologiya nervnoi sistemy* (Physiology of the Nervous System), Vol. 1. Medgiz, Moscow, 1952, p 142.

¹⁴Ya.Ya. Roginsky, M.G. Levin. *Osnovy antropologii* (Fundamentals of Anthropology), Moscow University Press, Moscow, 1955, pp 465-468.

¹⁵N.N. Cheboksarov and I.A. Cheboksarova. *Narody, rasy, kultury* (Peoples, Races, Cultures), 2nd ed. Nauka, Moscow, 1985, pp 125-126.

¹⁶Seven impulses altogether are traceable since the birth of Christ; judging by the end phases of ethnogenesis there would have been as many in the preceding two thousand years.

¹⁷According to M.M. Ermolaev, who has described Earth's circumplanetary envelopes, cosmic radiation can break through to Earth's surface at night when the ionosphere becomes thinner. The question of the significance of chance blows from Cosmos remains to be tackled. See: M.M. Ermolaev. On the Boundaries and Structure of Geographical Space. *Izvestiya VGO*, Issue 5, 1969.

¹⁸V.I. Vernadsky. *Op. cit.*, § 200, p 272.

¹⁹*Ibid.*

²⁰S.V. Kalesnik. *Obshchie geograficheskie zakonomernosti Zemli* (General Geographical Patterns of Earth), Moscow, 1970, pp 91-96.

²¹G.V. Plekhanov. On the Materialist Understanding of History. *Selected Philosophical Works*, Vol. II. Progress Publishers, Moscow, 1976, p 236.

²²G.V. Plekhanov. On the Question of the Individual's Role in History. *Selected Philosophical Works*, Vol. II. Progress Publishers, Moscow, 1976, p 308.

²³L.N. Gumilev. *Stepnaya trilogiya* (Steppe Trilogy), Nauka, Moscow, 1970.

²⁴See: G.V. Plekhanov. On the Question of the Individual's Role in History. *Selected Philosophical Works*, Vol. II. Progress Publishers, Moscow, 1976, pp 304, 305.

²⁵Mikhail Lermontov. *The Lay of Tsar Ivan Vassilyevich, His Young Oprichnik and the Stouthearted Merchant Kalashnikov*. Progress Publishers, Moscow, 1976, pp 23-24.

²⁶Cited from: W.O. Douglas. *The Three Hundred Year War. A Chronicle of Ecological Disaster*. Random House, New York, 1972, p 127.

²⁷*Ibid.*, p 18.

²⁸*Ibid.*, p 127.

²⁹*Varangs* (in Russian *Varyagi*), foreign mercenaries hired for military service.

³⁰The Christian community has been regarded in various aspects: as a social movement of slaves, as a sect, as a formation of the 'internal proletariat' (Toynbee). I propose an ethnological aspect as throwing light on the problem from another side.

³¹Charles Diehl. *Les grands problèmes de l'histoire Byzantine*. Librairie Armand Colin, Paris, 1947, p 59.

³²Macedonius taught that the Holy Ghost was not a person of the Trinity but had been created.

³³This has been excellently described by Augustin Thierry in his *Récits des Temps Mérovingiens* (1840).

³⁴See: Jean Dorst. *Avant que Nature meure. Pour une écologie politique*. Delachaux et Niestlé, Neuchâtel, 1978, p 56.

³⁵The heroic Chanka survived in this green hell. Their descendants were discovered in the upper reaches of the Amazon after I wrote these lines.

³⁶An edict of Rothari of A.D. 643 forbade belief in striges and lamias (vampires), and did not permit 'the murder of women accused by madmen of witchcraft'.

³⁷Since all ethnoi are subject to an entropic process of the dispersion of energy, i.e. drive, the word 'backwardness' means that an ethnos is still quite rich in this energy, just as a hot object has not yet managed to cool.

³⁸By the forces of nature I subsume here grandiose changes of relief, for example transgressions of the sea, eruptions of volcanos on islands, age-long drought, an epidemic caused by an emergent or carried virus, etc.

³⁹Werner Sombart. *Der Bourgeois. Zur Geistesgeschichte des modernen Wirtschaftsmenschen*. Verlag von Duncker und Humblot, Munich, Leipzig, 1913, p 11.

⁴⁰*Ibid.*, p 35.

⁴¹*Ibid.*, p 243.

⁴²*Ibid.*, p 254.

⁴³*Ibid.*, pp 256-265.

⁴⁴*Ibid.*, p 267.

⁴⁵*Ibid.*, pp 269-270.

⁴⁶*Ibid.*, p 270.

⁴⁷*Ibid.*, pp 272-273.

⁴⁸*Ibid.*, pp 275-276.

⁴⁹*Ibid.*, p 440.

⁵⁰*Ibid.*, p 449.

⁵¹John Stewart Collis. *The Triumph of the Tree*. Jonathan Cape, London, 1950, p 181.

⁵²From the seventh century B.C. Babylon even changed its language; Aramaic, which was spoken in Syria, came into use. The admixture of the Jews brought into Babylon by Nebuchadnezzar, was very great; many of them were not able to prove their Judaic origin after liberation, and remained in Babylon. In the sixth century B.C. Babylon had been converted from the capital of monoethnic Akkadia into an urbanistic agglomeration (zone of ethnic contact). See: V.A. Belyavsky. *Ethnos in the Ancient World. Doklady otdelenii i komissii VGO*, Leningrad, 1967, 3: 24-27.

⁵³V.A. Belyavsky. *Vavilon legendarnyi i Vavilon istoricheskii* (Legendary Babylon and Historical Babylon), Nauka, Moscow, 1971, pp 96-97, 174.

⁵⁴The Manchus, an ethnos of the Tungus group, began the conquest of China in 1644, completed it in 1683, which put an end to the independent existence of the Chinese national state. Until 1911 the Central Plain, which we call China, was a province of Manchuria; and the people who lived there, Chinese, were without rights, and oppressed. There are no grounds for considering the Ch'in dynasty Chinese, as is constantly done.

⁵⁵*The Collected Works of Henrik Ibsen*. Vol. IV. Peer Gynt. A Dramatic Poem translated by William and Charles Archer. William Heinemann Ltd., London, 1917, p 247.

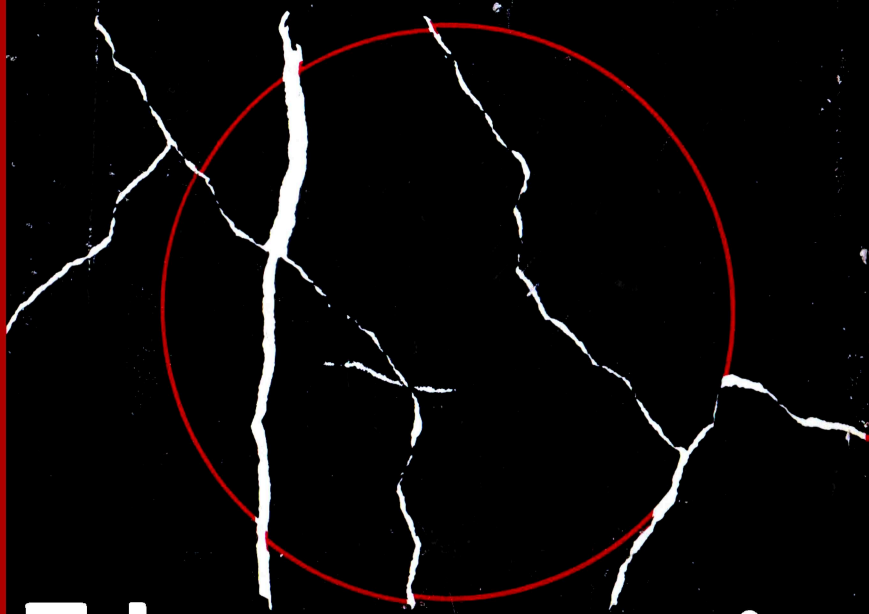
⁵⁶Suresh Vaidya. *Islands of the Marigold Sun*. Robert Hale Ltd., London, 1960, p 108.

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